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APRIL, 1906

THE AUTOMOBILE MAGAZINE

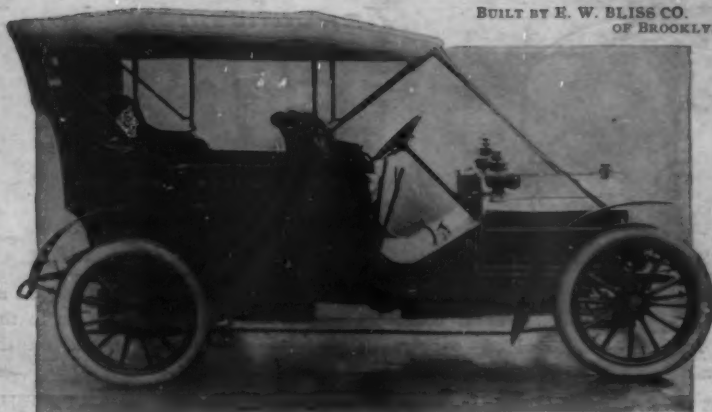
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Announcement No. 3

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The Automobile Magazine

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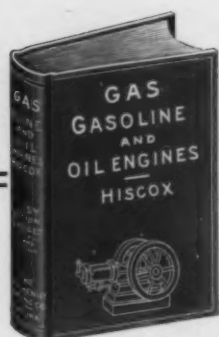
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**AUTOMOBILE
MAGAZINE**

136 Liberty Street
NEW YORK

Likely to Interest You

We are making garage news and the advocacy of garage interests an important feature of the AUTOMOBILE MAGAZINE. We wish to have a correspondent in every garage in the country and will pay liberally for letters and other contributions likely to interest automobilists.

There is no better way of finding out the speed to be secured from various sizes of tires than by testing them on an electric vehicle, as it is easy to note the amount of power required.

There is a very decided sentiment among many automobilists in favor of having villages where the scorching motorist is the greatest nuisance, to put down raised cross walks and deeply depressed cross water ways. Striking these things at high speed increases the scorchers' fear of the law.

The cutting off from State legislators the graft milkings that have come so freely from insurance companies naturally demands a new source of revenue. It is not, then, surprising that automobilists and automobile interests are looked upon as legitimate objects of blackmail.

A beautifully illustrated descriptive catalogue has been issued by the Daimler Manufacturing Company, describing in detail the construction of the celebrated Mercedes automobile, which is being reproduced in every way equal to the European-made car, and at a much smaller price, at the new works of the company at Long Island City, N. Y. The Mercedes has led the way in many of the admirable features of the modern automobile, and the elegant catalogue

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improved appliances in the way of accessories of every kind and description. Over one hundred of the leading firms engaged in the various branches of many industries furnished exhibits, which, with the constant demonstrations that were going on, gave the exhibition a realistic aspect that was at times particularly interesting and exciting. We cannot enumerate even briefly the complete list of exhibits from the 75 H. P. marine motors that followed each other in an endless cruise around the lake. Some were gorgeous as Cleopatra's barge, and sailed swan-like in full blown beauty, rich in velvet tapestries and gilded railings. Others were smooth and slim and white and glided noiselessly, the short distance not giving full scope to the marvelous velocity with which they cleaved the water. Stalwart youths were paddling gaily painted canoes and swimming matches kept the galleries in a continual roar.

Turning to the motor exhibits, there was a close resemblance to the automobile show of a month ago, with the added difference that the mechanism was nearly all in motion. The Brown-Talbot Company, of Salem, Mass., had a fine display of small motors varying from $1\frac{1}{2}$ to 10 H. P., light and compact and noiseless as a Waterbury watch. The Brown-Trebert Company, of Rochester, had a variety of heavier engines, massive in appearance, but light in weight when one considers that motors of 1,000 lbs. gross weight develop 75 H. P. The two-cycle motors of the Tuttle Co., Canastota, N. Y., were models of mechanical workmanship, very compact and admirably suited for the semi-torpedo form of launches, which the company has popularized. Mr. Miller, of New York, had a model exhibit of a complete machine shop on wheels furnished with a perfect outfit of tools and which ought to be in great demand by chauffeurs and motor

men. Of motor gears there was no end, each with some ingenious variation peculiarly its own and adding to the maze of accessories aiming at perfection. The pressed steel boats of the Mullins Co., Salem, Ohio, attracted much attention. They are unsinkable. Mr. Rice, of Bordentown, N. J., had a fine exhibit of beautifully burnished and compact motors. The finish would give a Frenchman fits. Rice's work looks like refined gold, and the noiseless flight of the shining wheels shows how perfectly the parts are fitted. The Balzer Carbureter illustrated the principle of surface evaporation and was in itself a most interesting and novel exhibition.

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As we approach the smaller accessories it is amazing that so much that is really new rises before us. Here is the Apple Ignition system from Dayton, Ohio, flashing into intermittent flames, spectral and restless as the aurora borealis. Here are exhaust-operated pumps furnished by Curtiss & Waterhouse, of New York, that seem to run themselves. They do not even need to be looked at. Ever ready portable electric lights flash at us from dark corners and ought to be in the hands of every belated traveler, so that he can readily see the keyhole of his own dwelling. Gabriel's Horn is here from Cleveland, Ohio, sounding a melodious note that reminds one of calling the cattle home in the summers of long ago.

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machinist simply runs the car under the loops, drops the latter over the ends of the car, takes a few turns on the crank and the machine goes up to proper elevation to allow free examination and adjusting underneath. But some of the things we see are actually absurd and ought not to be used in the automobile shop. Fig. 2 illustrates a tinkering job which came to notice and which served to lose one repair shop and garage a customer. The steering wheel was broken in an accident and three spokes were minus. The machine was run into a shop for repairs. Next day the owner, upon calling for the car was surprised to find his steering wheel blocked off with a piece of solid hardwood inserted inside the rim, against the remaining spokes and hub, as at *c*, Fig. 2. There were a number of rivets put in through holes bored in the rim to support the wood block. The wood was painted black. The owner of the machine got good and hot. The only excuse the repairman could offer was that he was out of wheels, and supposed the owner wanted the car in a "hurry." In another case, a repairman offered practically the same excuse for dovetailing a cog into a gear. An automobile was run into the shop with slow speed with a tooth snapped off from one of the gears. The machinist had no duplicate gear and proceeded to file out a deep slot on the tapering plan to receive a cog after the pattern exhibited at *f*, Fig. 3. All went well with the inserted cog for a time. Then, because of the cutting of the rim so deeply, to receive the cog, the rim itself broke and the owner of the automobile came down upon the repairman for the poor job. The rim would not have been weakened had the slot been cut but slight depth into the rim as at *d*. In another shop a machinist was noticed carefully observing an object on his file as he artistically manipulated the tool on some

delicate part of an automobile. Upon examination, the little object on the file was seen to be a little spirit level like *e*, Fig. 4. And the man was going by this



Fig 6

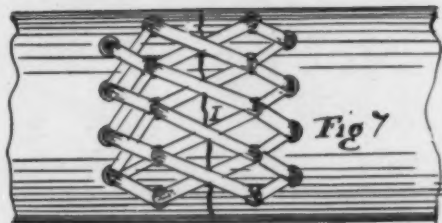


Fig 7

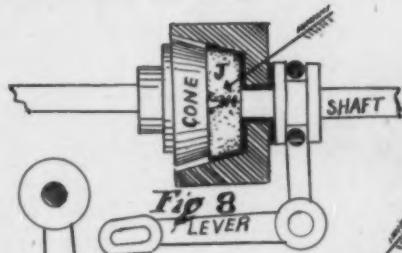


Fig 8

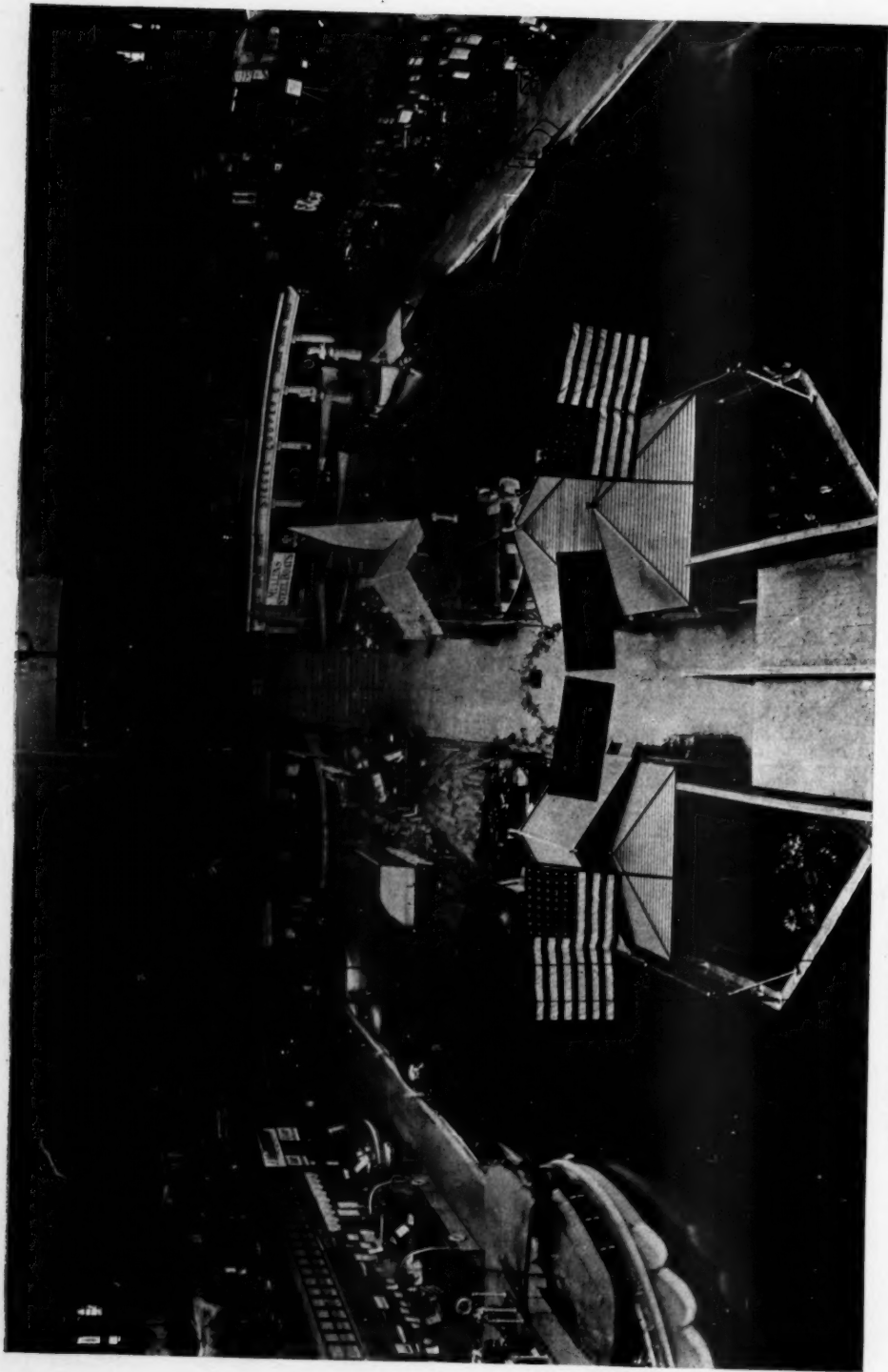


Fig 9



Fig 10

to get a level surface. Then in another instance, an automobile was turned over to the repairmen so that a certain shaft bushing could be examined for heating. The parts were deluged with oil. The machinist thought more oil hole space was needed and tediously and scientifically made a well finished, reamed hole like *g*, Fig. 5. In the country hospital for automobiles you can find some of the



NATIONAL MOTOR BOAT AND SPORTSMAN'S SHOW, MADISON SQUARE GARDEN, NEW YORK

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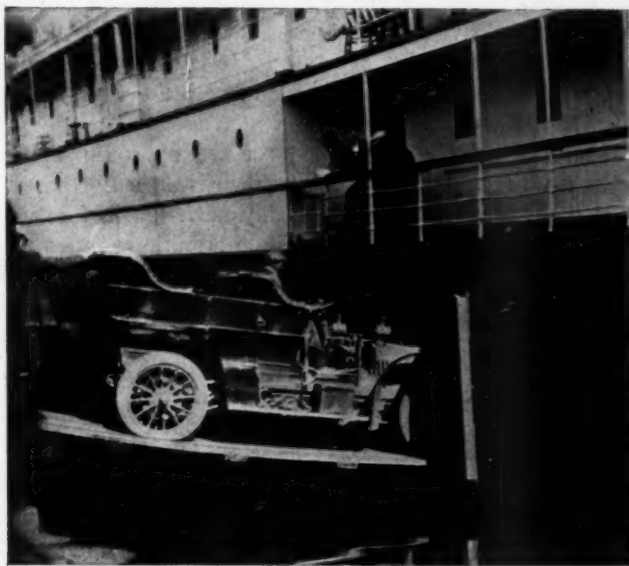
No. 4

National Motor Boat and Sportsman's Show

By James Kennedy

Madison Square Garden, New York, was the scene of another grand triumph when for two weeks the vast building was thronged with thousands of interested spectators view-

gathered from all over America. The exhibits were in every instance of the best, as none but reliable manufacturers or builders are admitted to membership, thus uniting those who are foremost in



F. ED. SPOONER TRYING TO GET ON BOARD FOR CUBA

ing the exhibits and witnessing the endless variety of competitions at the National Motor Boat and Sportsman's Show, which closed in the second week in March. In the center of the hall an artificial lake gave a fine opportunity to display the beautiful outlines of the splendid fleet of motor boats which were

the industry, and the public can place the fullest confidence in any of them.

These annual exhibitions give the public every facility for becoming better acquainted with the complete motor boat, and for the careful study and comparison of the leading makes of motors and designs of hulls all under one roof; also

improved appliances in the way of accessories of every kind and description. Over one hundred of the leading firms engaged in the various branches of many industries furnished exhibits, which, with the constant demonstrations that were going on, gave the exhibition a realistic aspect that was at times particularly interesting and exciting. We cannot enumerate even briefly the complete list of exhibits from the 75 H. P. marine motors that followed each other in an endless cruise around the lake. Some were gorgeous as Cleopatra's barge, and sailed swan-like in full blown beauty, rich in velvet tapestries and gilded railings. Others were smooth and slim and white and glided noiselessly, the short distance not giving full scope to the marvelous velocity with which they cleaved the water. Stalwart youths were paddling gaily painted canoes and swimming matches kept the galleries in a continual roar.

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Laurie," and Signior Gustave D'Aguin's military band, with its endless maze of wandering warbles is mercifully hushed now and the old song falls upon the hushed multitude like a benediction.

After the song we had a drink of some delicious kind of soup, heated without fire, by the Aetna Self-Heating Company, of New York. It was richer than Hebe's nectar and warmer than mother's milk. Just the thing for a wandering

of the pines scenting the air with resinous richness.

As we leave the great hall there is a deep sea motor boat, made by the Standard Motor Co. of Jersey City, carrying everything before it. The propeller is driving the maddened molecules of water into a white frenzy, and the screw is suddenly reversed and the whirling waters act as if they were on the wide Atlantic.



CHAS. J. GLIDDEN, R. M. OWEN AND FRIENDS SAYING "PART IN PEACE"

sportsman on a wet night; but presently we are in Newfoundland. Mr. Reid, the great railway magnate, had sent on four of his best guides, great, solemn-looking, splendid fellows. All the animals were there also, by twos, like Noah's ark. When we go hunting in Newfoundland we will know them again when we see them. Here also is a section of the Wild Wood Lodge Company, of Canada, a panorama of nature in her beauty and solitude on the French river, with the moon holding its yellow lamp over the shimmering waters, and the balmy breath

A decided tendency has been manifested of late among State Legislature solons to put punishment in the way of extra licenses upon automobilists who pass in from another State. The spirit is a kind that long prevailed in Europe, where restrictions were put on people to prevent them from moving out of their own parish. The spirit is unworthy of America, and we are inclined to believe that it violates that part of the Constitution which confers upon the Federal Government the right to regulate commerce between States.

Cars and Their Defects

By John D. Campbell

When one contemplates purchasing an automobile, inquiry is begun to find out which make is the best, and having that point settled, the element of cheapness is looked for, forgetting that the cost of maintenance must be added to the first cost in the working life of a machine. Sometimes a decision is arrived at by the mere glitter of brass finishing. Sometimes the painting has a guiding influence, or perhaps there may be in the mind of the intending purchaser some limited superficial knowledge of motor cars. After a purchase is made, the first few months' service of the automobile may be fairly satisfactory. Then begins the realization of the fact that the machine is not infallible. It seemed to have been overlooked that careful attention was necessary in conducting a light machine that had been working up to 20, 30 or 40 H. P. as the case may be, over rough roads, up and down hills, through dust and mud, a rough kind of service which is done by no other machine of like weight. Trouble may have been expected with the tires, but the breaking down of the machinery creates much disappointment. Ample warning may have been given, but it was unheeded. The machine and the maker are alike condemned.

The question is often asked what is the weak point in this or that kind of automobile. To-day the majority of the makers of the best cars are offering the same design and mechanism in their motors. Just as in the case of the locomotive, years of service has developed what is best, and the same elements survive, combining simplicity of detail with ease of access, examination and adjustment.

The essential features in automobile design is that the steering gear should be as safe as it is possible to make it, that the bearings should be as large as permissible and that all connections on rods

and shafts should have properly fitted bolts or screws. It is not enough that there should be a jam nut when nuts are used on wearing parts, but the nuts should be guarded with a spring cotter. Studs should never be used where it is possible to substitute a bolt. Shafts and bearings should be maintained in perfect line. All braces and shafts should be hand fitted to their places, and the material throughout should be of the very best.

In the early days of the automobile articles were written on the necessity of lightness. Owners talked with pride of the lightness of their cars. Power was furnished for a minimum of strength in parts for transmitting it. Shaft, pistons and bearings were small, and as a consequence lost motion with pounding and loosening of bolts soon followed. The limits of mechanical appliances in the dimensions of parts had been surpassed. They were smaller than they should be. It will frequently be heard that a car has made a certain number of miles in one place at a certain cost for repairs, and again that another car of the same make and power in another place has cost a much larger amount for the same mileage, and has had more failures. The fact may be that the last car may have been used chiefly on hilly roads, and when we consider that 1 per cent. of grade means a co-efficient of 10 pounds per ton of weight, it is easy to see how much additional work must have been done in the last instance. When we consider that on a level road the resistance is about 30 pounds per ton, extra grades must rapidly affect the machinery.

As an illustration of this a well-known mechanical engineer brought a car from Europe early in 1905 with the intention of manufacturing from the same design. He was familiar with its performances in Europe where it was very popular.

He ran the car during the season in the hill country of Northern New Jersey and in New England. After running 3,000 miles, the car was examined and it was found that a general loosening of the wearing parts had begun, that many rivets were loose on the friction disk and that the brake connections were especially in a condition bordering on collapse. Complete repairs were made at once and at a trifling cost. The defects if neglected a short time longer would have resulted in a complete breaking up of the car, and to the ordinary layman it would have been blamed on the maker or design. Similar machines had run many more miles on the level highways of France, and it shows that it is well to watch what effect the work has on any part of the auto, and strengthen the weakening part at small cost and remove defects that in other localities and under other conditions might not exist.

English Motors

The increasing popularity of motor cars is seriously distressing some of the English railways. The trouble cannot be met by reducing the fares, for the people who can afford motor cars do not grudge the higher first-class fare. As an illustration of the growing popularity of the motor car, there were no fewer than four hundred automobiles at the Henley regatta. This means a loss of nearly two thousand passengers who would otherwise have traveled first-class. Officials in the midlands and in Scotland have the same story to tell. It is said that at the assemblies at the Court at Windsor Castle, the railways carry only a scattering few, the great mass of the nobility and gentry traveling in automobiles.

Mr. Astor Uses Ancient Wood

A wonderful relic of the past has been brought to light at Yaxley, Peterborough,

England, in the discovery of what is most probably a buried forest. At a depth of seven feet have been found a number of oak trees which have lain buried for some 2,000 years.

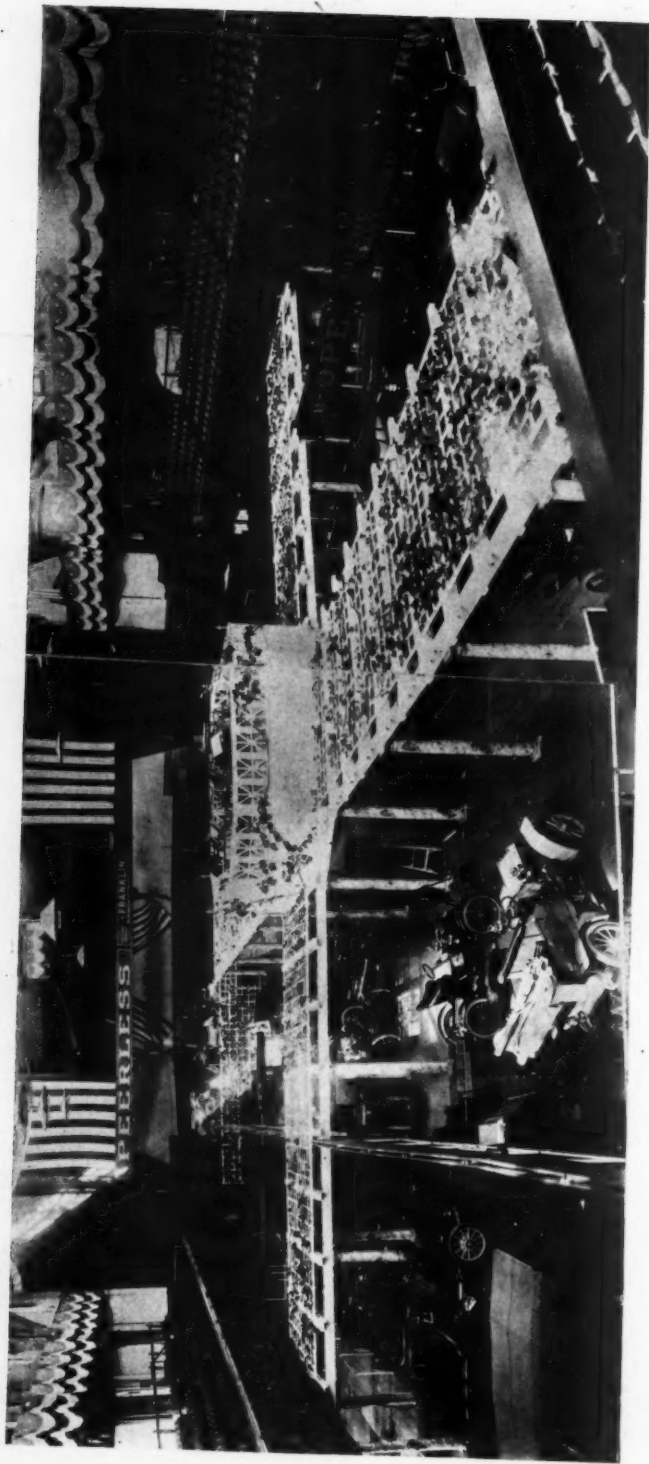
Most of the trees are almost perfect in condition, and are being sold to furniture manufacturers and others. Altogether about eighty trees have been raised, and hundreds more are left in the ground untouched at a depth of five or six feet.



Miss Georgine R. Wild, daughter of Henry Siegel, in Packard. Miss Wild is the fiancée of an Italian Count.

In nearly all the cases the roots are found attached. The trees are in clusters of three or four, pointing in different directions, and in some instances they lie across each other.

The wood is extremely hard, and can only be worked by machinery; it turns the edge of an axe. Some of the trees are being cut up for use in the mysterious mansion which is being built for Mr. Astor.



GENERAL VIEW OF BOSTON AUTOMOBILE SHOW

The Boston Automobile Show

By F. Ed. Spooner

BOSTON, March 15.—Generally speaking, it was a tired lot of exhibitors who entered Mechanics' Pavilion last Saturday for the opening of the Fourth Annual Automobile and the Second Power Boat Show. The local agents, members of the Boston Automobile Dealers' Association, on the contrary, were a jolly lot. With every prospect of success and with the prospect of great profits, the dealers had reason to feel jolly. The tired "show men," tired after nearly ten weeks of steady "showing" all over the country, felt that there had been altogether too much of a good thing. They were a disgruntled lot and their pale, sodden-looking faces, with dull eyes showing lack of sleep and rest, compared noticeably with the bright eyes and alert manner of the local people.

The Boston show this year occupied not only the Mechanics' Pavilion, but also Symphony Hall and every available inch of floor space was taken. True that the members of the Boston Automobile Dealers' Association "bagged" all the best spaces and made the allotments all their own way, but true also that it was their right. It caused a lot of kicking, and one member of the Association said, "Of course, we took all the space we wanted, but we are the promoters and it is our show. This is only a local show, you know, and we give it. The National Association declared itself in and gets a share for the sanction, but we were going to promote the show anyway, and in the strictest sense of the word we didn't need them. We won't need them next year either and we agents will promote the show anyway. It will be successful, too." From another source it was learned that the rank outsiders who took a part in the exhibition got just what was their due, the leavings after the agents had

taken all the space they wanted for their own exhibition.

That Boston had a great show may be learned from figures. Boston's floor space is 118,000 square feet, whereas Madison Square Garden has but 47,500 square feet, and Chicago, with two buildings, 84,000 square feet.

There was no real necessity in Boston for the occupation of the two buildings a quarter of a mile apart, providing space had been utilized as in New York or Chicago. The makers exhibiting cars numbered 107, and over 500 cars were shown inside, while one hundred or more cars were used outside for demonstrations. With all of these cars backed up against the curb, the sight was very impressive.

The attendance at the show Saturday night was so large that police protection was necessary at the doors to keep people from entering. It was a mob. The auspicious opening brought record-breaking crowds night after night and last year's attendance was doubled. Two years ago Symphony Hall was amply large enough for the entire exhibit and the attendance, paid, was about the same then as was the attendance this year in the hall. Yet the Symphony Hall exhibitors were early in the week given the name of "Sympathy Hall" exhibitors, and they received the sympathy of all. Especially was this the case when on Thursday a severe snow storm, the first real snow of the year, started Thursday early. This came as a succession of hard luck, for Symphony Hall did not open until Monday night. Then the hall was packed with boys and girls who came in on the unused tickets of Saturday night. Every exhibit was overrun by children, and those who came to see retired in disgust.

As the result of too many shows and

the enormous expense the sentiment in favor of one big National Show at New York took definite form and in all probability one show and an earlier show will be the demand.

The Boston dealers themselves had a big kick coming, for one of them said, "All of my prospective customers waited for the show and now they are so confused by the great variety of machines they have seen that they want to wait until later. I'll lose some of my 'prospects' and gain a few, and after all my business will be done from the store on Columbus avenue."

Boston made every effort to add beauty to old Mechanics' Pavilion. All through the main building and criss crossing the grand hall, pagodas were constructed. These grape-covered arbors were lighted by multi-colored electric lamps and the scene was one long to be pleasurably recalled. It made things bad for the camera men though, and they kicked long and loud at the badly obstructed view. On either side of these pagodas the exhibitors with ample space displayed every possible care of every line handled. Yet all exhibitors had ample room and the people wandered through the exhibits freely.

Demonstrations were freely given and out in Huntington avenue there was a busy scene. The Boston police had their hands full, for demonstrations could not be long and the drivers were always anxious to show the true speed of their cars. There were some arrests, but as a rule the police were lenient in view of the occasion.

Boston's show brought forth a sufficient number of new cars to create a new show providing they were added to New York. Yet there were few surprises and Boston developed nothing entirely new. Providing New York has the only National automobile show next year and every car maker endeavors to secure

space, Madison Square Garden and Sixty-ninth Regiment Armory will never hold them all.

The industry has so far outgrown available buildings in New York, Chicago or Boston that talk of monster out-of-door shows is once again rife. Whereas in New York there is now a well concerted movement, which has for its object the separation of the Motor Boat and Sportsman's Shows, there is also a movement in Boston to separate the automobile from the boat show.

In Boston the boat business is considerable and might easily show by itself.

The commercial wagon is gaining ground daily and will ultimately occupy enough space to demand a separate show.

Boston's display of commercial wagons was quite a feature of the shows.

Taken all in all, Boston's show ranked with New York and Chicago, and while Boston laid claim to being only a local show, there was every earmark of nationality about it, both by reason of the completeness of its display and the presence of the makers and their representatives. The New England representatives of the makers, tradesmen from every part of New England and many trades people from long distances in search of new agencies, formed a goodly crowd of visitors, packing the hotels of the city. The early morning attendances were always large, and noticeably so, and it was in the morning hours that real business was accomplished. In the early afternoon the sight-seers charged the doors, and from noon to midnight the attendance was enormous.

The popularity of the automobile in Boston and vicinity was attested by the demand for higher priced cars. In former years cars up to \$3,500 to \$4,000 value have had the call, but now cars of every price are in demand and the dealers find it impossible to secure a suffi-

ent number of high priced foreign cars.

Many of the exhibitors at this show came over the roads and did not depend upon the railroads. Even though winter was on, not in all its fury, however, the autos succeeded in reaching Boston in good shape. One of the most pretentious excursions was that of the Decauville Automobile Company in a C. G. V. car, driven by A. W. Church, and two English Daimler cars, driven by Messrs. Dewar and Hardy. New York press men were the guests of the trip. The C. G. V. and the Hardy Daimler came through on Saturday in 15½ hours, but the Dewar Daimler had its own troubles.

Vehicles That Kill People

The 2,100 street cars in Chicago killed 337 people and 4,000 automobiles killed but five. Horse-drawn vehicles killed twelve. There is no talk of restrictive legislation against the street cars nor against horses. Anyone killed by the car or the horse must have been careless, that is all. The papers give little space to such killings, and it seems quite safe to gamble that more space was given in the daily papers to the killing of five by automobiles than was given to the killing of 324 by other means of conveyance. In Chicago automobiles are allowed to travel much faster than



CARS WITH MEMBERS OF PRESS GANG READY TO START FROM NEW YORK FOR BOSTON SHOW

Through pulling along for miles over or through roads hub deep in mud, a leak in the gasoline tank resulted and the compression escaped. Six hours the party waited while a plumber came three miles and took the tank away for repairs. After the six hours' wait, the mud again caught the patient Dewar and then a puncture came. The roads were vile as a rule from Bridgeport, Conn., to Warren, Mass., and all sorts of trouble resulted for excursionists. The press men of New York, as guests of the Decauville Company, represented by A. W. Church, E. S. Partridge and Messrs. Dewar and Moore, enjoyed the time of their lives.

in any other city and yet they do less damage. The automobilist when driving fast is more on guard than he who is held down to no speed at all, and people watch out more carefully when they know that the automobiles are traveling fast, when otherwise they grow careless and get damaged.

No Limit

"It's too bad the average man can't be satisfied with a good living and not be hungering for more money."

"The average man is satisfied with a good living. The only trouble is that his idea of a good living grows with his income."—Philadelphia Ledger.

Crude Repairing Operations

By Terence Grenholme

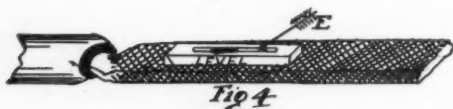
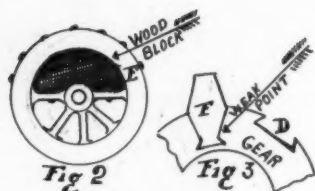
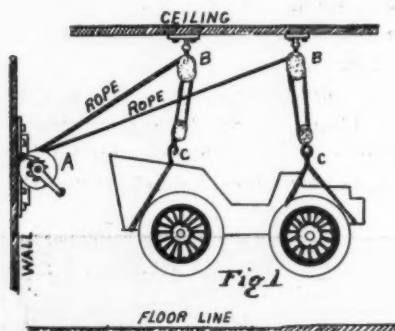
Chats With Automobile Operators and Machinists

Editor AUTOMOBILE MAGAZINE:

One comes into contact with strange and oftentimes absurd things in connection with the care and repair of modern

cropping up with great frequency in all sections of the country as is well known, and oftentimes the machinists of these shops are quite imperfect in their knowledge of the automobile mechanisms. The gas ignition system bothers the man who is familiar with steam power devices only. The "jump-spark" and other factors are new to him, and when he is called upon to make adjustments and repairs he is often at loss as to what to do. However, the country automobile machinists are improving each season and some of these men have really benefited the business. In one of the country shops I noticed a rigging for elevating an automobile as in Fig. 1. The first thought is to laugh at the odd arrangement introduced by the ingenious amateur repairman. But after investigating into the scheme here shown, I observed a number of advantages.

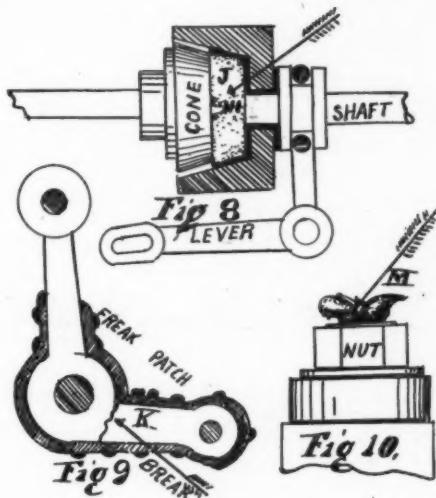
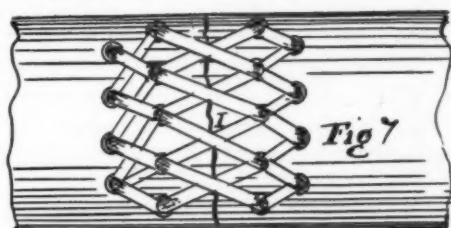
There is always a great deal of work to do underneath the machine when the motor needs attention. Perhaps the tanks require examination. May be the wheel axles are out of order or other gearing below the car needs adjustment. It is customary to lie on the back in the road or on the floor, beneath the machine and do the tinkering. This is very uncomfortable and difficult. Therefore, some men have arranged mechanical stands by which the four corners of the car are elevated so that the workman may get below and work freely. Other devices are used also. In this special instance, the machinist used simple rope slings, *c c*, which were fitted over the car ends as shown. Screwed to the ceiling above are the blocks, *b b*, and the ropes run down to the creel *a*. This creel is provided with a crank and ratchet and is fitted to the wall with bolts. Hence, in order to do some work beneath a car, the



automobiles. In this articles I shall refer to some of the efforts of certain men to keep their machines in condition and to effect various repairs to the mechanism. Very often considerable benefit is derived through observing the mistakes of others. Your correspondent has traveled about the country lately and has taken notes on uncommon devices and customs in automobile storage departments, in repair shops and sales departments. Hospitals for automobiles are

machinist simply runs the car under the loops, drops the latter over the ends of the car, takes a few turns on the crank and the machine goes up to proper elevation to allow free examination and adjusting underneath. But some of the things we see are actually absurd and ought not to be used in the automobile shop. Fig. 2 illustrates a tinkering job which came to notice and which served to lose one repair shop and garage a customer. The steering wheel was broken in an accident and three spokes were minus. The machine was run into a shop for repairs. Next day the owner, upon calling for the car was surprised to find his steering wheel blocked off with a piece of solid hardwood inserted inside the rim, against the remaining spokes and hub, as at *c*, Fig. 2. There were a number of rivets put in through holes bored in the rim to support the wood block. The wood was painted black. The owner of the machine got good and hot. The only excuse the repairman could offer was that he was out of wheels, and supposed the owner wanted the car in a "hurry." In another case, a repairman offered practically the same excuse for dovetailing a cog into a gear. An automobile was run into the shop with slow speed with a tooth snapped off from one of the gears. The machinist had no duplicate gear and proceeded to file out a deep slot on the tapering plan to receive a cog after the pattern exhibited at *f*, Fig. 3. All went well with the inserted cog for a time. Then, because of the cutting of the rim so deeply, to receive the cog, the rim itself broke and the owner of the automobile came down upon the repairman for the poor job. The rim would not have been weakened had the slot been cut but slight depth into the rim as at *d*. In another shop a machinist was noticed carefully observing an object on his file as he artistically manipulated the tool on some

delicate part of an automobile. Upon examination, the little object on the file was seen to be a little spirit level like *e*, Fig. 4. And the man was going by this



to get a level surface. Then in another instance, an automobile was turned over to the repairmen so that a certain shaft bushing could be examined for heating. The parts were deluged with oil. The machinist thought more oil hole space was needed and tediously and scientifically made a well finished, reamed hole like *g*, Fig. 5. In the country hospital for automobiles you can find some of the

queerest of customs prevailing in the line of sewing up defects in tires. In one place where they had a man who had been employed as a power-man in a cotton mill, the most artistic combinations of lacing joints were employed. For illustration a split tire was at hand. The fracture was opened out full in the usual way, cement introduced and then laces were strung through as at *h*, Fig. 6. In another case, the ends of a tire were closed together with the fancy power belt lacing system presented in Fig. 7. One peculiar job that came to our observation is shown in Fig. 8. It is a friction-clutch wheel. The leather facing had come off the metal surface of the cone. The repairman did not have leather of the right width, and therefore he put on the narrow piece *j*, cementing and riveting the same to the cone, also joining the ends as shown. Of course, only half the capacity of the cone was available after that, until the trouble was discovered, and then the slipping clutch was properly repaired by the use of the leather of full width. In Fig. 9 is a freak job, and you would be astonished if you were to visit the country shops and notice jobs of a kindred nature. The country shop cannot be expected to carry a full line of extra parts. Hence, when a break occurs on the road, some artistic piecing of parts is often needed. In this case, the elbow was put into proper order for re-use by the elaborate manner of piecing up with strap iron as shown. The fracture had occurred at *k*. It may seem unreasonable, but there are hasty men in the business, who, in their hurry, do things of the nature presented in Fig. 10. A nut bothered by working free and turning off. Instead of putting on a lock nut, the careless workman split the head of the bolt as at *m*.

"AN OBSERVER."

To Keep Bearings Running Smoothly

The writer has for years used Dixon graphite in the crank case of his automobile with excellent results. He has also been in the habit of putting a small quantity of graphite in the compression chamber with good effect upon the piston. We have used merely the grades of graphite used for ordinary machinery, but it seems the makers think they can do better for automobilists. They write us:

"We are going to put up a finely pulverized graphite and call it Dixon's Autographite, and a little of this in a man's crank case to the proportion of about a teaspoonful to a quart of oil will do wonders in lubricating the pistons and I honestly believe makes better compression by filling up as it does the minute irregularities in the piston and wall of the cylinder. Then we have graphite cup grease and a first-class grease for gears."

Send to the Joseph Dixon Crucible Co., Jersey City, N. J., for a sample and tell them we advised you to do so.

It is said that one of the best and healthiest trades in the world is that of dye-making from coal tar. Tar and the smell of it is the best of all tonics and tissue-builders. The average life of a tar worker is eighty-six years. The mortality is 80 per cent. lower than in any other factory trade.

The Practical Girl

The girl of musical bent had elected to learn the flute.

One day she read that kissing spoiled the lips for flute playing.

"On reflection," she said, "I believe my real taste is for the violin."—Philadelphia Ledger.

He—I hear your husband is a great speaker.

She—Oh, yes. In the House of Commons; not in mine.—Judy.

Sidney S. Gorham

One of the most prominent figures in the automobile world at present is Sidney S. Gorham, the new secretary of the A. A. A., and counsel and chairman of the Law Committee. Mr. Gorham has been an enthusiastic automobilist almost since the sport began, and he has been a leading hard-working member of the Chicago Automobile Club.

Mr. Gorham's business career has been that of many a young man in the present generation. Naturally a student, but unable to pursue his educational course, without working to supply the means, he went as office boy with one of the largest firms of corporation lawyers in the Middle West. He has risen so rapidly in his profession that firm name now reads Mills, Gorham & Mills, and he is specially noted for his eloquence as a pleader.

His general character cannot be better outlined than by quoting the words of one of his former Chicago chums: "Mr. Gorham is a student by nature; no one could ever coax him away from his books during study hours, but when relaxing from work he enters into all sports with the heart of a true sportsman—enthusiastic, generous, unpretentious and ever ready to help the under dog."

There is an American type of men that I have come to recognize as a distinct one—a product of New England growth transplanted on western soil. If you should ever happen to hear Mr. Gorham employ what I am told is his strongest cuss word, "Well, I'll be gosh-hanged!" any hesitancy you may have in defining his particular type will be immediately removed. Good, sterling qualities are there, combined with a breezy sort of boyish cheerfulness and humor, and a stern determination that is not to be confounded with obstinacy—as mere obstinacy—but only on broad, straight lines. Sidney S. Gorham, as a man who has

aimed high, persevered and generally hit the mark sooner or later, has proved his undeniable fitness for the secretaryship of A. A. A.

I venture to prophecy that he will continue to achieve, and that we shall soon see results under his new régime, equal to those under the retiring secretary, Mr. Batchelder, who is so thoroughly



SIDNEY S. GORHAM
New Secretary of A. A. A.

admired and approved by everyone. Mr. Gorham is young to have acquired so goodly a business reputation—only thirty-one.

"Well, the Panama Canal is to be formally opened to-day."

"Yes; Van Sweller was around last night bragging that he had some of the first issue of canal bonds, subscribed for by one of his ancestors, which had been in his family ever since."—Puck.

Chauffeur in Jail

Hon. Leroy B. Crane, of the City Magistrate's Court of New York, never loses an opportunity to give automobilists all that is coming to them. The latest example is that of E. H. Hawley, of Brooklyn, who was charged with speeding over twenty miles an hour in Pelham Bay Park. Hawley is employed by Mrs. Charles Cubusher, a St. Louis millionairess. She had a car full of lady friends and was the commanding spirit, and if Hawley had not run the car to suit her, it is more than likely that somebody else would. He was promptly dragged before the indignant magistrate, who lectured him soundly and in the absence of bail remanded him for trial. Meanwhile the wealthy St. Louis millionairess and her friends went to the theater and poor Hawley went to jail. The magistrate is an old politician, and it has been said that politicians can see with one eye only. He makes a blatant and often silly pretence of taking sides with suffering humanity; but if there was any sense of justice in his narrow mind, in cases like the above, the wealthy employer and the poor employee should stand side by side at the bar of justice, and it would not take a Solomon to discover who the real guilty party was.

To Make Tires Durable

Those most familiar with methods for lengthening the life of pneumatic tires, say that the most important advice they can give automobilists is always to keep the tires well inflated. The importance of this advice cannot be overestimated. More tires are rendered worthless from using them with too little air pressure than from all other causes combined, and fully one-half of the tires in use in Minneapolis are habitually kept improperly inflated, say the dealers.

Many drivers imagine they have their tires sufficiently inflated, when, as a mat-

ter of fact, they keep them almost constantly with insufficient air pressure. The tire should be inflated so it shows no depression whatever when standing on a hard surface under a full load.

An inter-city automobile race from Terre Haute to Indianapolis, seventy-three miles, has been planned for the first Sunday in May. The Terre Haute Automobile Club has sent a challenge to the autoists of Indianapolis for a race in which each city would be represented by six cars, the winners to be the guests of the losers at a banquet in Indianapolis following the race. It is proposed that the machines be started separately and timed. Terre Haute contestants propose to enter three Peerless and three Packard cars.

The Fisher Automobile Company, of Indianapolis, has accepted the challenge, and it is believed other companies and individuals will also take part.

Some of the automobile manufacturers looking for new worlds to conquer perceive in Russia a promising field for motor car enterprise. We do not think that Russia is going to buy many automobiles in the near future, for it is an intensely poor country with a very meager middle class well-to-do population, the kind of people who keep the automobile industry prosperous in other countries. Another drawback to automobiling in Russia is the miserable condition of the country roads, which are a little worse than the average American highway in thinly settled States.

Otherwise Engaged

"It must be a lot of work to write an historical novel."

"Yes," said the author; "it takes so much time that one really doesn't have a chance to read much history."—Washington Star.

General Correspondence

This department has been established to enable our readers to express their views on automobile matters. We require the real name and address of each writer as evidence of good faith. We hold ourselves responsible for everything published in the Magazine, but we do not always endorse the views of correspondents.

Anti-Puncture

Editor AUTOMOBILE MAGAZINE:

I was much pleased to see that you took occasion to speak a good word for "anti-puncture" in your March issue. You will permit me, however, to add that "anti-puncture" does not remain in a semi-liquid state. The coating which it forms on the inside of the inner tube is about half an inch thick on the tread and less on the sides, and is a part of the tube, and if anything pierces the tire, this composition, soft and resilient, as is all uncured rubber, is pushed aside rather than penetrated and springs back into place when the spike is withdrawn, and if the air reaches the "anti-puncture" covering the aperture, the composition is oxidized and the opening healed. I think it is the best thing in the market and when the public wakes up to that fact there will be no more trouble with punctured tires. A. M. G.

New York, March 17, 1906.

Automobile Cylinder Compression

Editor AUTOMOBILE MAGAZINE:

I note an article on page 165 of your March issue signed J. H. I would strongly advise this gentleman to investigate the gas engine practice a little bit more before he makes another break like he did in this article. It would probably surprise him to learn that 85-lb. compression is about the average used on an

automobile engine and that they often run up to from 90 to 95 lbs. If he will take the trouble to put an indicator or even a pressure gauge on a cylinder and turn the crank, he will find the statement to be correct. The mistake he makes is due to his manner of figuring the pull



MISS OLGA NETHERSOLE IN RAINEAR CAR

on the starting crank. The lever arm of the crank pin at the top of the stroke when the maximum compression is realized is very short indeed, so that the pull on the crank handle is much less than he has figured. As an illustration, I have just recently been pulling over a 5-in. en-

gine with 85 lbs. compression by means of a 2-ft. crank. In regard to the power of the engine he has forgotten to consider the speed. At 1,600 revolutions it is possible to get 24 H. P. out of a 4½ in. by 5 in. two-cylinder engine. If he does not believe me I can give him the address of a party who is making this engine and he can go and see for himself. This is a result of not only "paper and pencil," but of a little practical knowledge of gas engines as they really are.

E. W. ROBERTS.

How Patentees Are Imposed Upon

Editor AUTOMOBILE MAGAZINE:

Since you have intimated that you intend keeping people connected by letters with automobiles, I wish to ask you something about patents. I paid a large sum of money to secure a patent on an improvement on automobile transmission mechanism, expecting that the United States Government would protect me against infringement and would protect my rights in my patent property. But what do I find? People are making my device, and when I consulted a lawyer to find out what could be done he informed me that my only remedy was to institute a suit in the courts against the people who were making revenue out of my brain labor. This is an outrage, and I wish to enlist automobiling sentiment into having the unjust laws changed that enable unscrupulous capital to swindle poor merit.

INVENTOR.

The Uncertain Horse Power

Editor AUTOMOBILE MAGAZINE:

The element of uncertainty in regard to horse power is surprising to me in view of the degree of perfection to which the automobile has arrived. Cars are sold at the present time by one manufacturer who states that the brake horse

power is 45, while with the same size of cylinders and almost the identical mechanism another sells his car as of 25 H. P. Surely no kind of improvement in mere details of construction could so largely improve the strength of the machine. This is where, I think, the State regulation could be of some real benefit as a check to unscrupulous manufacturers making absurd claims of power that could not possibly exist within such limited compass, and on the other hand it would be a protection to conservative makers and above all to the innocent purchaser, who has really no check on the claims of the makers. In this regard we could learn a lesson from the Automobile Club of France, where the cars are classified by the number of cylinders and the diameter of such cylinders, regardless of the length of stroke, thus practically acknowledging that the short-stroke engine running at a high rate of speed is no stronger than a long stroke engine running at a slower speed.

It is being proposed to levy a State tax on automobiles, in which event, doubtless, the horse power of the machine will be an important factor, and it will be well if some simple State rule can be established for determining the actual horse power or tractive power of each machine.

J. L.

High Strength Means Brittleness

Editor AUTOMOBILE MAGAZINE:

The claim made by some manufacturers of automobiles that their product possesses special merit owing to steel of very high tensile strength being employed appeals more to novices than to people familiar with engineering principles. It is not difficult to obtain steel that has a breaking strength of 100,000 pounds to the square inch, but that material is deficient in the characteristics of elasticity and elongation. Bridge rods,

for instance, are never specified to exceed 70,000 pounds tensile strength, and they must average about 40 per cent. of elastic limit. Higher tensile strength implies lower stretching limit without breakage, and means brittleness. Don't encourage the use of brittle material for your automobile. Steel for boilers is never higher than 60,000 pounds tensile strength.

ENGINEER.

A Good Voluntary Word for the Automobile Magazine

Editor AUTOMOBILE MAGAZINE:

The writer, along with probably a very large number of your readers, has been very much interested in the more "popular" form and tone of your publication for the past two months. The wider range of live subjects than formerly, the restoration of the old-time editorial page, and the conscious effort to bring the reader in closer touch with the publication: all of these things attract the attention of one who has been a reader from the beginning. I am sure that I echo the sentiments of the "Old Guard" in wishing you an increased measure of confidence, and a still larger prosperity, along these lines.

Just now the average automobilist wishing to subscribe for a publication devoted to the field of his special interest has a job before him and no mistake. Despite one conspicuous failure among the weekly automobile journals last year, there are enough left to keep one busy seven days a week to read them. The duplication of subscribers (or free recipients) along these lines must be very great, and likewise the burden upon the young industry that is obliged to support them. But the end is yet afar off.

This spring sees, for instance, several new publications devoted solely to commercial automobiles, a subject formerly

considered well taken care of, along with the other developments of the sport and trade, between the covers of the various monthly magazines and weekly papers already in existence. So the trade and public have another burden added in the shape of a practically simultaneous beginning of probably half a dozen new ones. In what other line of legitimate publishing have so many new publicity mediums been brought into being at a stroke?

It is plain that the sense of rivalry among the publishers of automobile journals already in existence, rather than the urgent needs of the day and hour, has been the controlling factor in this new development. A lot of us will watch with interest to see whether the commercial side of the industry expands just enough to support all these new self-appointed spokesmen of it, or whether their publication will be, for a number of years at least, an expensive luxury to their ambitious publishers and exponents. So far as the writer of this communication is aware, no such mushroom development has ever been known to the journalism of this or any other country.

After being confronted with this bewildering array of auto-sport and auto-trade publications, it is interesting to look over the title page of THE AUTOMOBILE MAGAZINE, the pioneer of all of them. And especially to note that it is continuing now, as from the beginning, to cover the essentials of the automobile movement, comprehending in one broad scope both pleasure and business vehicles. In popular form for the "average reader," the underlying supporter of them all, and yet correct enough to be interesting to the technical expert: these are the essentials which you seem never to have lost track of.

Please do not be carried away with the current which has apparently swept up

all the rest, but continue to give us the "much-in-little" of the automobile sport and trade. This will be distinction enough for the old-young magazine, and ought to assure the continuance of the substantial following and cordial support accorded to it since the very beginning of automobile journalism in the United States. I am confident that this is the sentiment of many.

A READER FROM THE FIRST.

Minor Troubles That Vanquish

Editor AUTOMOBILE MAGAZINE:

It is sometimes amusing, after the difficulty has been overcome and everything is again running smoothly, to think how small a matter will often put an automobile out of service, although at the time it is rather humiliating to be compelled, as politely as possible, to inform your companions that you are very sorry but do not see any way to get the thing to go, and, in your judgment, the best way is for them to walk to the interurban station, which is only three miles away, and take a car home. This will be especially annoying, if, as is usually the case, your companions are ladies among whom your wife is not to be found.

After seeing them started on their weary way you start in to find out why the engine stopped. For the benefit of any who may not be very old in the service, I will relate an experience that all but compelled me to say that I was beaten.

We were running along very successfully when suddenly the engine stopped and no amount of coaxing would get it to go faster than it would run with the throttle closed.

After removing goggles and gauntlets and remembering that someone had said that grease or other matter on either or both of the points that come in contact to complete the circuit once in every two revolutions of the engine, would cause

the charge to fail to ignite, I lay down on my back and proceeded to kick myself under the machine.

After gaining the desired position and while stretching my neck to get a good view of the aforesaid points, I rub the side of my face along the chain, which gives color to the complexion. I now discover that I have nothing with which to do the cleaning, so squirm from under the machine to get some waste.

After doing the cleaning, I take the starting crank and turn the engine to the point where the circuit is complete, and to my delight hear the buz-z-z of the contact braker, which is proof that the current is flowing, but yet it may not reach the spark plug on account of being short circuited between the spark coil and plug.

The gasolene is now turned on and the engine given a start with the crank, when it runs all right. Jumping into the car with the thought in mind that perhaps I would yet get home before my companions, I press my foot on the throttle when the engine stops again. Thinking that perhaps the supply of gasolene has not been sufficient, it is given a more liberal supply and the engine started again and it runs as though it intended to "do business" until the throttle is again pressed down when the engine stops again.

Some serious thought was now necessary, but it was getting toward night and threatening clouds were to be seen, making haste also necessary.

I finally concluded that the trouble was in the carbureter; something disconnected or perhaps some foreign substance had found its way to the inside of the carbureter and restricted the flow of gasolene, or air, or both.

After removing the necessary parts of the body of the machine and scattering them not very gently over the face of the earth, I proceed to stand on my head to remove the carbureter for dissection.

and inspection, with the result that nothing is found wrong. While preparing to put it on again it is found that in the hurry to get it off the gasket between it and the cylinder head had been seriously injured, and also that no material was at hand from which to make another one. Another season of serious reflection.

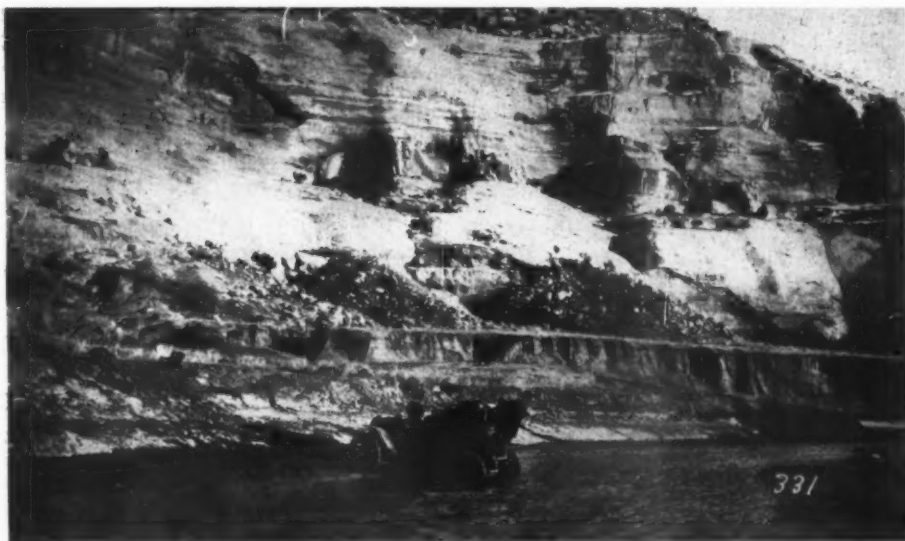
In vain the tool box was searched for something, anything, out of which to make a gasket.

along than when I bade my companions good afternoon three hours before.

Some more serious though not very good-humored reflection was the next step.

For want of something better to do, I started the engine again. As before, it run as long as the throttle was not moved, but of course did not have enough power to propel the car.

The back of the body of the car being



PERCY F. MEGARD IN HIS REO FORDING STREAM WITH QUICKSAND BOTTOM IN NEW MEXICO

The old gasket is again examined and it is finally decided to risk trying to use it, so the carbureter is put on only to find that it leaks around the gasket too bad to be of service. The contortions are again indulged in and the carbureter again removed. While taking it off a happy thought came to me. I had on a pair of new rubbers, for which I had just paid \$2.50, and as the soles were quite extensive (No. 14) concluded to use one of them for a gasket, and, fortunately, it made a good one, although somewhat thick.

After all this trouble I was no farther

now removed I could see a small spark at the contact breaker each time the explosion took place.

I ventured to again press the throttle very coaxingly, but it was no go. However, I had discovered something. I noticed that the spark failed to appear at the contact breaker when the throttle was pressed down, and at once started to investigate.

The machine was equipped with an electric bell, the current being furnished by the same battery that supplied the sparker. One of the wires connecting the battery and the bell was located di-

rectly under the throttle rigging, which was so constructed as to give a downward movement to the part of the throttle directly over the bell wire, when the throttle is opened. Right here was the cause of the whole trouble.

When the throttle was opened it came in contact with the bell wire, which did no harm until the insulation on the wire was worn through, which allowed the bare wire to come in contact with the throttle, thus taking the current away from the spark plug and causing the charge to fail to ignite. A few strips from the sides of the already mutilated rubber served as temporary insulating material, and allowed me to get home, where I found my companions waiting for me, but they were not polite enough to inform me that they had spent a delightful afternoon.

IRA A. MOORE.

Cedar Rapids, Iowa.

The Cruel Tax Assessor

A man who will boast to the extent of stretching the truth about the fine qualities of his automobile receives a sudden change of heart when the assessor of taxes wants to know the value of the machine for personal tax purposes.

The tax assessors of Michigan appear to have been very slow in taxing automobiles, for it was only lately that owners of horseless carriages received notice of tax assessment. The effect of this is that the automobiles are reported to be in horrible condition. In one town nearly all the automobiles reported on spent the greater part of their time in the repair shops, and most of them needed rebuilding.

The notices are sent to every one having a State license for an automobile, and few are missed. The notice reads:

"We find your name in the list of owners of automobiles furnished by the tax commissioners as owner of No. — (here

is given the number of the owner's license). We enclose blank statement of personal property for taxation. In making your statement please give the cost and present value of your automobile. If you have sold your machine please give name and address of purchaser."

The assessors have already secured a multitude of statements in reply to this communication, and it is understood that their contents are exceedingly humorous, making a pretty bad showing for the condition of local machines.

Incidentally, this auto tax is involving owners of automobiles in still more trouble. The list which has been forwarded the local board gives the assessors the names of many persons who must not only make statements about the value of their machines, but must also tell what other personal property they have.

The Richest Schoolma'am

Miss Elizabeth Farson, whose private income is said to be \$40 a day, and whose brother is the banker and celebrated automobilist, John Farson, is a Chicago school teacher at a salary of \$40 a week.

She has been teaching Chicago children for almost thirty years, and keeps on doing so simply because she loves the work and sees in it a chance to mould for good the future citizens of the big town. She says that if she had a million dollars a year she still would be a teacher. At present she is principal of a school attended by 1,500 pupils.

Yes, It Is

"So you think you'll never get into heaven, eh?"

"I'm afraid not."

"And why not?"

"I've been trying for years to get into society, and failed."

"Oh, well, society is more exclusive than heaven is."—Houston Post.

What Inventors Are Doing

Patent Office Department

A notable feature of the bulky reports of the Patent Office Department this year is the growing number of devices used on automobiles. The inventive faculty, ever alert to the growing needs of advancing civilization, runs with mercurial swiftness into new and popular channels, and while there are a few mechanical problems that seem to have an everlasting interest about them for the inventors, such as the car coupler and the non-refillable bottle, there is a constant inventive drift in new directions.

We select out of a host of meritorious contrivances the most notable additions to the devices, the object of which are to improve the details of the mechanism used on automobiles. They are all possessed of more or less merit and, doubtless, will receive the consideration to which they are entitled.

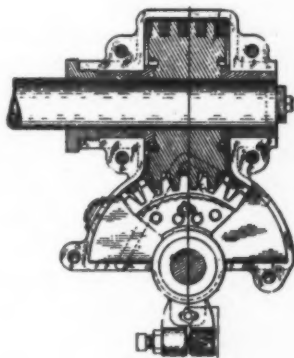


Tire Protector

Mr. John E. Caps, Kansas City, Mo., has patented an improved tire protector combining a yielding body and a puncture resisting strip of resilient material extending through the body and overlapping it with means of securing it to the body of the tire. The improvement is simple and durable.

Steering Gear for Automobiles

Mr. J. Warrington, Indianapolis, Ind., has patented a steering gear for automobiles which combines with the steering shaft and worm carried thereby, a worm



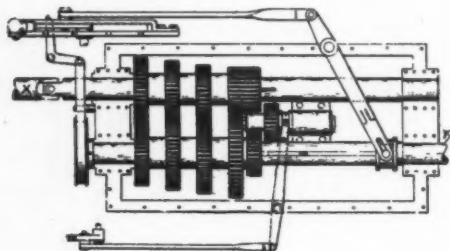
segment meshing with the worm angularly adjustable to each other, a casing for the parts inclosing the worm and toothed portions of the worm segment. It is also provided with an arm projecting from the shaft opposite the toothed portions and a yielding buffer carried by another arm, the whole forming a very reliable and substantial steering gear.



Vehicle Tire

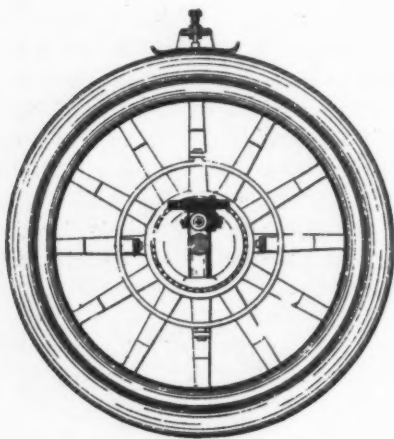
Mr. Hugh R. Auld, Boston, Mass., has secured a patent for a vehicle tire consisting of a strip of rubber having flanges on each side of the tread portion for supporting retaining wires, and longitudinal side bars located in the base portion of

the tire for stiffening the base and arched to exert the maximum resistance to compression stresses.



Variable Speed Device

A variable speed device has been patented by Mr. John A. De Vito, Roxbury, Mass., consisting of a rotatable driven and a driving shaft having a longitudinal keyway, a plurality of gears mounted upon the shaft each provided with a keyway, a shift collar slidably mounted upon the shaft, a key rigidly attached to the collar and adapted to slide in the keyway and engage the keyway in the gears.



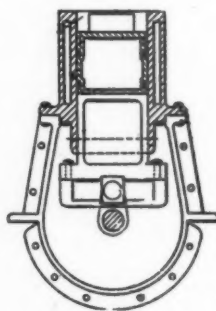
Motor Driven Vehicle

A patent has been secured for a motor driven vehicle by Mr. H. T. Hansen, Wauwatosa, Wis., embracing the combination of a central fixed axle shaft provided with pivot studs, a ring mounted on the studs, a wheel having its hub

mounted upon the studs, and driving mechanism having universal joint connections substantially in the plane of the wheel rim.

Motor Controller

A motor controlling apparatus has been patented by Mr. C. A. Eck, Newark, N. J., combining with a motor having poles and an armature, a yoke portion of varying cross sectional area, the yoke being adjustable so as to cause the magnetic lines to flow through that portion of the yoke having the largest area or through the portion having the smallest area, thereby changing the speed of the motor as the lines of force pass through either portion. A spring is adjusted for pulling the switch lever away from the contact plate on a quick action.



Explosive Engine

Mr. G. Pendleton, Groton, Conn., has patented an explosive engine, the claims embracing a crank chamber section with a cylinder mounted thereon and extending into the chamber, a shaft revolvably mounted, a piston formed with a depending plate, a cross bar detachably secured to the lower end of the plate and a traveler block mounted to slide between the cross bar and the lower end of the plate. The combination is strong and compact.

Wheel Tire for Automobiles

Mr. H. Kerngood, Baltimore, Md., and Mr. H. A. Taylor, New York, N. Y.,

have invented and patented a wheel tire for automobiles, with a sheet metal rim strengthened by convolute springs extending transversely of the rim, and having loose sliding connections and a rubber tire inclosing the metal rim and secured at its extreme edges. It combines in a marked degree the qualities of strength and resilience.

to the band by fastenings passing through the band for securing the tire to the wheel rim. The emergency tire is readily adjustable and easily secured.

Rubber Tire Guard

An improved rubber tire guard, consisting of a network of cruciform links



CHINESE MINISTER TO LEFT, CHINESE AMBASSADOR TO ENGLAND ON RIGHT.
FIRST SECRETARY CHINESE LEGATION AT WHEEL

Emergency Tire

An emergency tire has been designed and patented by Mr. R. G. Smith, Buffalo, N. Y., comprising a flexible band adapted to encircle a wheel rim, a series of blocks or sections secured side by side

and alternating ring-like links has been patented by Mr. Lewis Slama, Humboldt, Neb. A simple contrivance binds the chain guard to the tire and forms at once a strong and durable protection to the tire.

Automobile Clutch

A clutch for automobiles has been invented and patented by Mr. F. Miller, Los Angeles, Cal., which is the result of many years' experimental work and, in its perfected state, controls with one lever the four speeds of an automobile—three forward and one reverse. The lever is situated inside the seat and the gears can readily be changed either way while the engine is running at the highest speed.

Kind of Cars Wanted

An interesting inquiry has been held by a French motoring paper as to the types of motor cars which are most required by the public. Over 1,000 replies were received, and 160 of those were from doctors. It appears that they would be content with cars of about 6 H. P., with an average speed of eighteen miles an hour, and costing under \$750. Commercial travelers would like cars up to 9 H. P., capable of averaging eighteen miles an hour and also costing under \$750. Shopkeepers would have a car of 7 H. P. and a speed of fifteen miles an hour, but the car should be big enough to hold three or four people, while most of the doctors and commercial travelers would be content with those holding two.

From the gentlemen of independent means many replies were also received, and they wanted 12 H. P. cars, an average speed of twenty-five miles an hour and seating accommodations for four. They would go up to \$1,700 in price.

All these figures go to show that the general public are very anxious to get a really cheap car, and at the same time it is evident that they are not always reasonable in their demands. It is all very well to say that one would be content with a car of low horse power, but if it is expected that such a vehicle should be capable of carrying four passengers and maintaining an average

speed of fifteen to twenty miles an hour the task set to the manufacturer is extremely difficult.

If a motor car is to be satisfactory it must have good material and good workmanship throughout, and these are two very costly items which just at present cannot be reduced very much.

To Establish Toll Houses

Something of a curiosity is a bill which Senator Minturn has introduced into the New Jersey legislature. It provides for the establishment of toll houses and gates at intervals of ten miles on the main highways. They shall be connected by a telephone system, and as each automobile passes a toll house ten cents toll for each person riding shall be paid, and the number of the auto and the time shall be telephoned to the next toll station. These tolls shall be turned over weekly to the Township Collector.

The moneys shall be used for road repairs. If any automobilist appears to be exceeding the speed limit the toll keeper may summon the nearest constable and arrest the offender, who shall be taken before the nearest justice of the peace and required to furnish bail. If on trial he is convicted the automobilist's license shall be revoked for a year. The State license fee for automobiles shall be \$5 a year, a share of the money to go to the counties for road repairs.

John Smith of New York

"But," she insisted, "the medicine must be all right. They print a splendid testimonial from a man who has been cured."

"Fake letter," said he.

"They wouldn't dare do that. The writer's name and address are given, so anyone might write to him. It's signed 'John Smith' and dated 'New York, Jan. 4,' just as plain as day."—Philadelphia Ledger.

European Notes and Comment

By A. F. Sinclair

Kerosene as Fuel.—The dread of the gasoline famine, which is ever present to some extent in Europe, has sent people in search of substitutes, of which, from its practically unlimited sources of supply, alcohol receives most attention. In France and Germany, government assistance has been given to that spirit in the hope that its use as fuel in internal combustion engines might have the effect of aiding the agricultural industry. It has to be confessed, however, that up to the present, especially in France, the progress has been but small. In the case of kerosene, or paraffin as it is called in this country, there is a more hopeful tale to tell. So great have been the improvements in paraffin vaporisers recently, that it is assured if the petrol supply were to begin falling off there would now be no difficulty about fuel. Any failure of supply would necessarily be gradual, and vaporisers would be fitted as the necessity arose. Hitherto these devices and the heavier oil have usually been used on boats, but cars have also used them and with the best results. It is, however, the case that the initial difficulty of starting from cold still exists, and has to be met by the use of gasoline till the engine heats, but that obstacle is bound to be overcome ere long by the many intellects at present devoted to the problem. Kerosene is, bulk for bulk, a better power producer than gasoline, and when at its best is an easier regulated fuel than its more volatile competitor. The French Government, always to the front when the improvement of the internal combustion motor is concerned, has instituted a competition for a paraffin motor boat, for the protection of the fisheries, and this should be of great assistance on account of the publicity given to the improvements in vaporisers.

French Sportsmen.—It is rather unsafe to generalize regarding national characteristics, but it may safely be stated that the term "sportsman" as understood by the Anglo-Saxon race, whether in Britain or America, has no application in the automobile community in France. The man who can win or lose a competition with equal sang-froid is non-existent among them, and the statement applies with equal force to their societies. This was shown most obviously in connection with the Gordon Bennett competition, in which they were quite content to take part on level terms as long as there was practically a certainty of winning, but when other nations crept up and first Britain and then Germany won the cup, France wanted representation in keeping with the extent of her industry. Everybody knows how the A. C. F. intrigued on behalf of the French trade until they to all intents and purposes secured the abolition of the Gordon Bennett race for the purpose of substituting an open competition in which any maker can enter, and in which France, consequently, must have an enormous advantage. Racing with the French club means business first and last. Even a worse case has arisen in connection with motor cycle racing. The French motor cycling club instituted an international race some years ago on the lines of the Gordon Bennett competition, the following year's race in every case to be run in the country of the winner. Last year Austria won the cup, and the race will, therefore, be held there this year, but France will be only represented by one make of motor cycle, and that a second rate machine. The French club have, however, decided to organize an opposition event to be held immediately before that in Austria. This is how the leading Ger-

man paper on motoring, Allgemeine Automobil Zeitung, refers to the subject:

"Austria won the cup last year, and will have to defend it in the coming summer against other nations, a fact the French cannot quite grasp until this date. But what they can understand is the fact that they do not wish to play anything but the first violin anywhere and everywhere. *Nolentes volentes* they will have to be represented in Bohemia at the final by one of their numerous motor cycle firms, but at the same time they are making propaganda with the whole of their enthusiasm, and in loud trumpet blasts for an international motor cycle event, solely and wholly organized by the Motor Cycle Club of France, which—*conditio sine qua non*—will take place before the race in Austria. A good trick that caught on with the Gordon Bennett race, and will surely not fail at the motor-cycling Gordon Bennett as well."

The European Circuit.—This event, instituted by the French club, will be on the lines of a competition carried through in this country in 1900 by the British club. On that occasion the distance was 1,000 miles in England and Scotland, and exhibitions of the cars took place at each place where the cars stopped for the night. The Continental event will probably be three times the distance, but it will, like its prototype, be a test of reliability. From Paris the route will be to the south of France, the north of Italy and across to the head of the Adriatic. Then through Austria to Vienna and eastward to Berlin, afterward through Hanover to Cologne and back to Paris. Twenty-one days in all will be occupied, and during fifteen the cars will be on the road, the remaining six being taken up by exhibitions at Toulouse, Milan, Vienna, Berlin, Cologne, and another city not stated. The competition will begin on Sunday,

the 29th of July and end on the 18th of August.

The Scottish Trials.—The hills of Scotland lend themselves to tests of motor cars and the organizers of this year's competition claim that as an organized trial under experienced and impartial observation last year's contest "presented in its route, general and hill-climbing tests unequaled in any reliability trial previously held anywhere" . . . and, "the route of the 1906 trial will provide a yet severer test of the competing machines." This test will last over four days, in which the cars will cover 673 miles over some of the most trying roads in Scotland. The tests will be: in reliability, for which 800 marks will be given and one mark will be deducted for every minute or part of a minute at which the car is stopped from mechanical trouble, and every minute in excess of sixty from tire trouble in the four days; in hill-climbing, for which a maximum of 100 marks for each test hill (up which each car will be timed), and in petrol consumption, for which the car with the lowest consumption will receive 100 marks. The cars will be divided into six classes—five for internal combustion cars according to price, and one for steamers, and the car making the best aggregate in each class will be awarded a gold medal. On account of the admirable business methods, the thoroughness of the tests, the fine organization under which hitches of any kind are unknown, and the high standing of the men who perform the duty of observers—each car carrying one appointed by the club—the Scottish trial has come to be recognized as one of the most genuine tests of cars organized in Europe. Last year forty-four cars took part in the competition, including two Fords and a Cadillac. This year's contest, which will be held in June, is expected to bring forward a considerably greater number.

Four versus Six Cylinders.—Some months ago a six-cylinder car was driven at a speed of 46 miles an hour on its highest speed at Brighton, on the south coast of England, and afterwards traveled to Edingurgh, 450 miles, without changing gear, this to prove the great elasticity of power of the six-cylinder engine. Since then there has been a vast amount of ink slinging on the relative values of four and six cylinder engines, but as most of the controversialists have been gifted with the maximum of egotism and the minimum of engineering knowledge, the discussion has proved wholly valueless from a technical point of view. It has, however, had this advantage, it has brought forth a challenge from one of the four-cylinder champions, who offers a cup for competition to settle the question of superiority. But although without value so far as an extension of knowledge counts it must have been of great service to makers of six-cylinder cars, and the firms engaged in making that form of engine did not fail to keep themselves and their wares in evidence. And that reminds me of the enormous strides six and eight cylinder engines, have been making recently. A London weekly, *The Automobile Journal*, published recently a "Buyers' Guide," in which it gave details of 498 types of cars at present for sale in the United Kingdom. Of these, four, all British, have eight cylinders; no less than nineteen six-cylinder machines are on the market, of which fourteen are British, four are French, and one is a mongrel, having a British chassis and a French motor. An interesting item in the list in question is the statement that of 41 composite cars, that is to say, British chassis with foreign engines or vice versa, twelve have foreign chassis fitted with British engines. The general impression in this country has hitherto been that in these mongrels the engine is al-

ways French or Belgian. Other figures are: Of the 498 cars, 203 are British, 185 French, 18 American, 16 Belgian, 14 German, 9 Italian, 4 Dutch and 3 Swiss. It will be seen that, although Britain is still unable to equal the whole of the others, she is pulling up and a few years will make an overwhelming change.

Commercial Uses for Automobile Motors

The numerous uses to which horse power has been indifferently applied on streets and roads will soon be much bet-



E. REND HOLLANDER AND AUGUSTUS POST

ter done by motor cars. Road rolling can be done more cheaply by a gasoline motor than by horses or steam.

The following officers and directors of the Electric Automobile Co. of Georgia have been chosen: Joseph S. Walker, president and treasurer; B. M. Hull, vice-president; S. N. Harris, secretary and manager; J. J. Raners, A. B. Hull, Davis Freeman, C. F. Graham, Hal H. Bacon, W. V. Davis, W. R. Stephens, G. Dexter Blount and Sig. Gardner, directors.

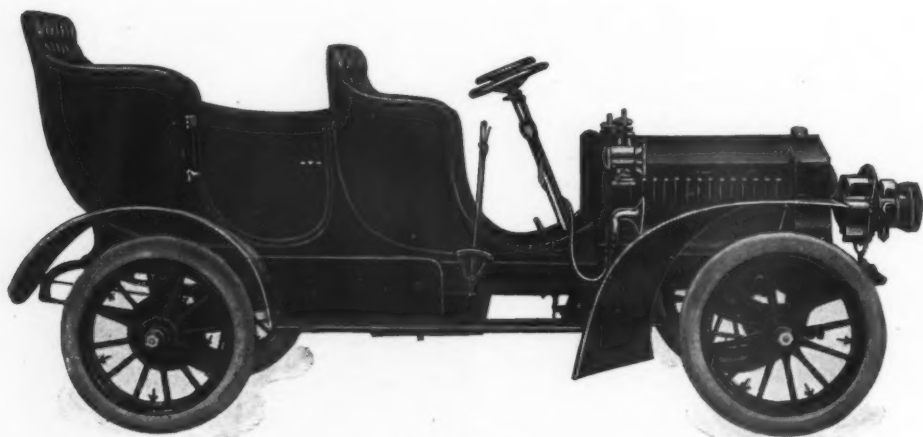
Running Gear and Mechanism of the Windsor Car

We here show two views of the famous Windsor car, one of them being a plan of the chassis and mechanism. They show that the designers have worked very successfully to simplify the foundation of the automobile.

The chassis of the Windsor car is constructed of pressed steel, light in weight, but amply strong, as weight is greatly eliminated in the Windsor on account of its few parts. The bearings on all wheels are ball, while roller bearings are used in other parts.

driven wheels are brought in contact transversely on each disk, thereby revolving the countershafts in the same direction either way, according to the direction the lever is placed. By sliding the driven wheels in and out from the engine shaft any speed can be obtained. Unlike all other transmissions, no damage can occur by misuse or neglect. Greater power is also obtained than from geared transmissions.

By the use of this transmission the troublesome split axle with differential gears is avoided, as this is absorbed by the transmission.



WINDSOR CAR

Engines are four cylinder vertical type, water cooled. The bore is $4\frac{1}{2}$ by $5\frac{3}{4}$ in. stroke, giving great power by using the expansive force of the explosion. A very sensitive governor absolutely controls the engine under all conditions.

Transmission is a new and novel invention known as the double rolling traction, erroneously called friction. Two large disks are fastened to the engine shaft, which act as fly wheels, and between the two disks are two driven wheels which operate two countershafts, on the ends of which are two sprockets carrying chains to each rear wheel. By a slight movement of a hand lever the

Brakes are applied on each rear wheel and, in addition, the transmission makes a most desirable auxiliary brake.

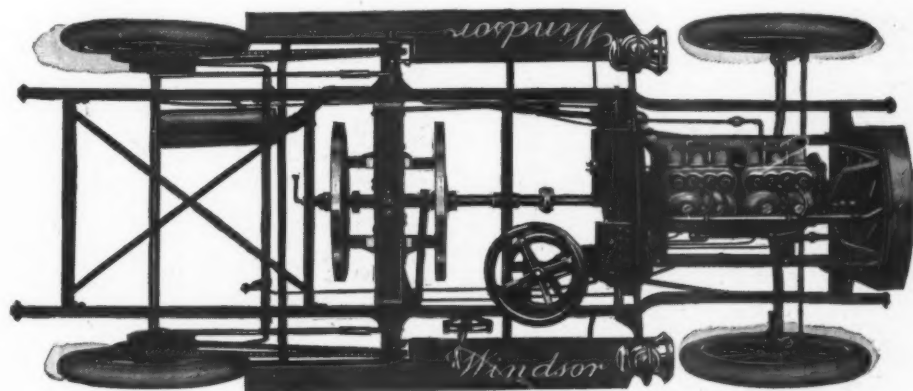
A Race for the Desert

A big gasolene touring car got stuck in the sand and mud while a merry party were out seeing the sights at Los Angeles, Cal., one night early in March. The faithful chauffeur remained at his post like the Roman sentinel at the gate of Herculaneum. At day dawn a kindly grocer took his horse to the rescue. Neither the steed nor the harness were strong enough. They obtained another horse, black, big and spirited, with fire

in his eyes and fury in the horns of his hoofs. With the heaviest harness and auxiliary cables the steed was securely fastened to the auto. The chauffeur started the machine with the assistance of the bystanders, who lent a helping hand. The horse pawed the ground, the engine coughed and the wheels began to move. Suddenly they were off, the chauffeurless auto and the riderless steed. The engine kept the car going. The terrified horse headed for the interior. Had he stopped he would have collided with the car. He had no intention of stopping. When last seen they

self in a very few minutes. An expert mechanic is never required for a Duryea. This, combined with a thorough system of interchangeable parts, makes Duryea repair bills amount to practically nothing. For more particulars send to Duryea Power Co., 30 C street, Reading, Pa.

THREE MEN IN A MOTOR CAR: To Say Nothing of the Chauffeur; Or, A Summer Tour Through France and Switzerland. By Winthrop E. Scarritt. Are you fond of automobiling? Do you admire the horseless steed?



WINDSOR CHASSIS

were heading for the Mohave Desert. It was even money which of them would get there first.

Why Duryea Accessibility Saves Money

Every bit of mechanism on Duryea's is wonderfully simple and compact. This not only makes a very light weight car, but also unequalled accessibility. Did you know that absolutely any part of the Duryea car can be removed or replaced in less than half an hour and 90 per cent. of the parts take less than five minutes. Duryea's wear indefinitely and practically never break down. However, should a small repair be necessary, you can do it your-

self. Would you like to take a motor trip over the matchless roads of France and Switzerland?

Would you like to know how easily, economically and comfortably to take your car and go abroad?

If so, read this book.

Next to the pleasure of going yourself is the delight of reading about it from the graphic pen of that well known and enthusiastic automobilist, Winthrop E. Scarritt.

But this book is more than the record of a trip abroad and telling one how to accomplish it.

It contains chapters on a number of interesting topics, such as Cars at the Cus-

tom House; The Fuel of the Future; The First Contests in America; The Car of the Future; Automobile Legislation; Man's Ancient Enemies; Apostrophe to the Automobile; The Most Dangerous Animal in the World.

Much as Mr. Scarritt has done for automobiling in America, this is his best piece of work. It will be read with pleasure and profit not only by every lover of the motor car, but by the general public as well. Price \$1.25 net, postage paid. For sale in this office.

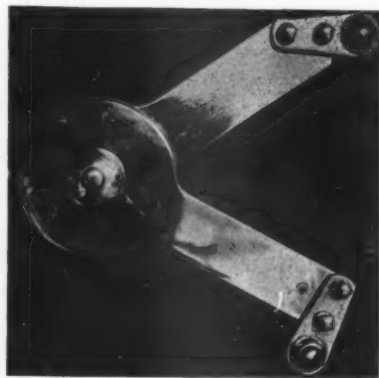
The chauffeurs of Kansas City have organized a union for mutual protection. Fourteen motor car drivers were enrolled in the union. First they ask \$90 a month salary in addition to board and lodging, which is always furnished. Further they ask that the machines be kept at a garage and that they be held exempt from doing washing and polishing. Besides all this the chauffeurs ask that they be allowed 5 per cent. from the retailers on all sundries purchased. This feature is what the agents oppose strongly.

Truffault-Hartford Shock Absorber

Many improvements have been made in the new Truffault-Hartford shock absorber, made by the Hartford Suspension Company, of New York, which will make it self-adjusting for wear, and render it easier to secure the arms of the frame. The new and improved device for 1906 is known as the Model H, and that the improvements make the suspension absolutely perfect, is generally admitted by the trade and automobilists. E. V. Hartford, president of the company, tells of the changes that have been made.

It is manufactured of spring steel throughout, except the friction disks, which are of leather. All the parts of the device are held together by a central stud. The arms rotate upon a hardened

and ground steel bushing upon this stud. The arms are pressed together by a large steel washer with five prongs, so arranged that any lost motion caused by wear is taken up automatically. The adjusting nut is provided with improved locking means, doing away with the use of check nuts. Each set of suspension is adjusted and tested to an equal tension, and after application requires no attention, the outer arms are joined firmly and form a rigid construction, while the



TRUFFAULT-HARTFORD SHOCK ABSORBER

center arm moves between the two outer arms, giving a straight up and down movement. This is a decided advantage over a former construction, which allowed of a shearing movement.

Nature is a pretty good guide to follow in the shapes that are fittest. The swift-flying pigeon, which makes the fleetest passage through the air, is not shaped with a peaked breast. On the other hand the shape of the turtle has been formed by ages of progress through water and mud. For a mud-traversing automobile we think the turtle shape would be about right.

The managers of the Automobile Club of America are preparing to build a six-story club house and garage conveniences that are badly needed.

THE AUTOMOBILE MAGAZINE

A MONTHLY JOURNAL DEVOTED
TO THE INTERESTS OF
AUTOMOBILISTS

ANGUS SINCLAIR, President and Editor

F. ED. SPOONER, Associate Editor

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Congress Inclines to Stern Laws for Motorists

There is a widespread belief that if Congress of the United States had the making of laws for regulating the movements of automobiles, there would be more fairness displayed towards automobile interests than there is by the various State legislatures. A bill recently submitted to Congress for the control of automobiles in the District of Columbia does not indicate much of a liberal spirit towards automobiles. In fact, "punishment" is the key note of the measure.

Part of one section of the bill reads:

"For conviction of the violation of any regulation or regulations limiting speed there shall be imposed for the first offense a fine of not less than \$5 nor more than \$50; for the second offense a fine of not less than \$20 nor more than \$100, or imprisonment not exceeding thirty days; and for the third offense a fine of not less than \$50 and not more than \$250 or imprisonment for not less than ten days nor more than one year."

To dispel uncertainty regarding the

last clause, which provides "for the revocation of the license or permit granted to owners or operators of automobiles whenever said owners or operators shall have been convicted in the Police Court of violating the regulation or regulations pertaining to the limit of speed, whenever such revocation in the judgment of the Commissioners shall be in the interest of public safety," it was stated at the District building to-day that any person whose license or permit had been declared forfeited under this law and who again appeared on the streets operating a motor car would be amenable to prosecution under the police regulation, which specifies a fine of \$40 for operating without such authorization.

Automobile Allowed Only Half a Pint of Gasolene in Garage

One of the most idiotic and pernicious court orders ever heard of was handed down last month by the New Jersey Court of Chancery, limiting the amount of gasolene in an automobile in a certain garage to half a pint. The order reads:

"It is directed to the defendants, their attorneys, agents and servants, enjoining them from storing, keeping, permitting and using gasolene inside of the building occupied by them as a garage until the further order of this court in the premises; provided, however, that until the further order of this court in the premises the said defendants above named may permit sufficient gasolene to remain in the automobiles about to enter the buildings under their own power; said amount of gasolene so permitted to remain in each said automobile shall not exceed one-half a pint.

"And it is further ordered as a concession in favor of the defendants contained in the above proviso that the complainants shall be permitted from time to time and at all proper times to inspect

the gasoline tanks of the automobiles about to enter the said building, or actually within the same, for the purpose of ascertaining the amount of gasoline therein."

The court no doubt was acting in the interests of safety to property, but the good intentions which are said to pave the way to a certain place which here shall be nameless, increase and magnify the danger resulting from the use of gasoline. The safest place we know of for gasoline is in the tank of an automobile. When, however, ignorant and careless people are required to habitually draw gasoline out of these tanks to deposit it in some distant reservoir, the danger of fire or explosion is enormously increased. It is a pity that common sense has so little influence in court decisions.

The Machinist Chauffeur

When the "watch dog's honest bark" sounds forth as a challenge to the moon, or to any other luminary, there immediately follows a chorus of challenges that make night hideous. When the human canine sends forth his note of blame or defiance through the mouth or pen he soon finds others ready to join in his chorus. A note of blame was raised in Great Britain a few years ago that chauffeurs were the plague of automobile owners' lives, and the complaint is now resounding from many voices in the United States. The most common subject of conversation to-day in clubs and other places where automobilists meet, not to pray, is the wicked chauffeur.

With people who own automobiles the shortcomings of the chauffeur is taking the same place as the iniquities of the servant maid have been with the female head of the household time beyond memory. There have been no doubt a great many inferior household servants, especially where mistresses were inconsider-

ate, unreasonable and incompetent, but the average hired girl has been like the average mistress, and they have got along with little disagreement. The exceptions are the bad mistresses and inferior servants and the tumult between these sounds so loud that many people accept that discordant condition of things to be the rule and ordinary condition.

The same condition of affairs exists between the automobile owner and his chauffeur, with some essential differences. The best class of chauffeurs are taken from the rank of machinists, and machinists are the most aristocratic among artisans. A machinist converted into a chauffeur may have been compelled to sweep the shop during the first year of his apprenticeship, but he does not in after life take kindly to menial duties of that kind; in fact, he abhors them. The automobilist who expects his machinist-chauffeur to do all the work on the vehicle, that a coachman is expected to perform on coaches and in stables, is likely to find himself disappointed. The machinist will examine the machinery carefully and repair parts that are wearing out of proper condition, and he will clean up the parts handled, but when he is asked to wash the vehicle, wipe the working parts and polish the shining accessories, he is liable to consider that menial work beneath the dignity of a trained machinist.

That will always be the condition of affairs as long as machinists are hired as chauffeurs. The employer ought to discriminate concerning the training of the chauffeur he hires. If the man is a competent machinist who can do repairs properly, he ought not to be asked to perform what a first-class artisan regards as menial work. A machinist has his standard of proper work just as much as a lawyer or physician and people ought not to blame him for refusing to do things which the sentiment of the

trade regards as beneath the man's dignity.

There is an impression among many people that because an employee has to don overalls or soil his hands with grease and other evidences of manual labor, that he is a menial whose feelings are unworthy of consideration, sentiment entirely at variance with the spirit of our institutions. Developed skill or ability raises the possessor above the common herd.

entirely different lines of business, and it was found by the tests of practice that a man who began work as a fireman without previous mechanical training made the most successful locomotive engineer. It will be the same thing with runners of automobiles.

An exaggerated charge against chauffeurs is receiving much attention from the press at present, to the effect that they are systematically exacting commission from dealers and makers of auto-



FAVOR FORD

We incline to the belief that the chauffeur of the future will not be a machinist, but a handy man who has received sufficient training to operate an automobile and to keep it in running order. When railroads were in their infancy an impression prevailed that a man to be a competent engineer must have received a machinist's training. Experience demonstrated, however, that running a locomotive and executing the repairs were

mobiles for services performed in securing orders for machines. Makers and dealers are so ready to give commission to all sorts of people for helping to effect sales, that we do not see why it should be called graft on the part of chauffeurs who perform services of this character and accept the commission that others expect and have been receiving in almost every department of commercial and industrial activity.

Power Savers

A favorite line of current invention in connection with automobiles is to harness electricity as an auxiliary or co-agent in the operation of gasoline motors, offers a most interesting line of thought and more than one designer has been attracted by the field of research and experiment it reveals. Any arrangement by which the superfluous energy of the motor could be employed in storing up power, which later, when the work to be done becomes harder, could be used as an auxiliary agent, would certainly be desirable. An Italian inventor named Pescatore has perfected a machine somewhat on the principles set forth, which was last month given a public demonstration in London, England. The car is controlled by a single lever similar to the ordinary change speed kind, and a foot pedal. There is no gear box. The clutch is in the form of a dynamo which, when the car is started, acts as a flywheel to the engine. This dynamo is connected with a storage battery under the driver's seat. An ordinary four cylinder motor is used. Energy not required to operate the motor is delivered through the dynamo to the storage batteries. In reciprocal way, when the load becomes heavier, as in climbing a steep hill, the batteries send back their electrical assistance, which is communicated to the driving shaft through the dynamo clutch. When the engine is cut out the dynamo is free to generate power for the next hard pull. The machine is said to operate in simple and successful manner.

It may be that the makers of automobiles will succeed in storing the power wasted by ordinary application of brakes, but we advise people not to be too sanguine as to results. All sorts of devices intended to produce similar results have been tried on railroad trains and street

cars, but we do not recall any of them being now operated.

American and Foreign Auto Cars

The relative merits of American and foreign automobiles occupy a prominent place when motor matters are under consideration. The field is so wide that it cannot be more than briefly touched in a short article. It is a well known fact that in the early years of automobiling many more foreign made cars were sold in America in proportion to the numbers used than there are at present. Several causes led to this. In the first place, the industry was more rapidly encouraged by the French people than by any other, and hence the manufacturers there acquired a degree of excellence in their work which it has been difficult to rival. There can be no doubt that the American automobiles are now equal if not superior to the best French or British auto cars. The recent exhibitions and exhaustive tests have shown that the American is in some respects superior to the foreign made cars, and in many instances the American public are prevented from purchasing the home made machine by the difficulty of obtaining delivery within a reasonable time.

It is a singular circumstance that in the manufacture of light machinery and tools the American maker is not only able to compete with the European maker, but all over Europe and particularly in Great Britain American reaping machines and agricultural implements are steadily increasing in demand, while French and British automobile makers claim that their auto cars are lighter, stronger, cheaper, better balanced and more easily controlled than those of American make. Whatever truth there may have been in these claims some years ago, they are groundless now. In the matter of lightness it has been dem-

onstrated that there is a reasonable limit in all moving mechanism below which it is dangerous to go, and while lightness is desirable strength is also necessary; and in these attributes American ingenuity is not surpassed by any mechanicians in the world.

In regard to materials, it was not to be expected that steel makers would devote much time or attention to motor steels when the industry was so small that little or no return would reward the research. Now specialists are devoting much time and attention to the manufacture of steels purely for motor purposes with the most gratifying results. The use of aluminum is being rapidly taken advantage of by American makers and it will not be surprising if the American made auto cars gradually take their places beside other machines of American manufacture that enjoy a popularity in Europe by the sheer force of their unquestioned superiority.

Interesting Races Next Year

It is up to W. J. Morgan always when he is seen to retail and wholesale matters of interest. The latest from this versatile gentleman comes in this style: "We will next winter conduct a power boat race from the Stars and Stripes to the Union Jack, starting at Miami, dashing across the Gulf Stream, thence through nearly still waters to Nassau. That will be an event of events, rivaling in importance the disastrous brush of the power boats across the Mediterranean Sea. Following this event we shall have the Miami motor boat races, the Palm Beach motor boat races and then the Ormond and Jacksonville meets. I do not believe that it will be possible to hold the races later



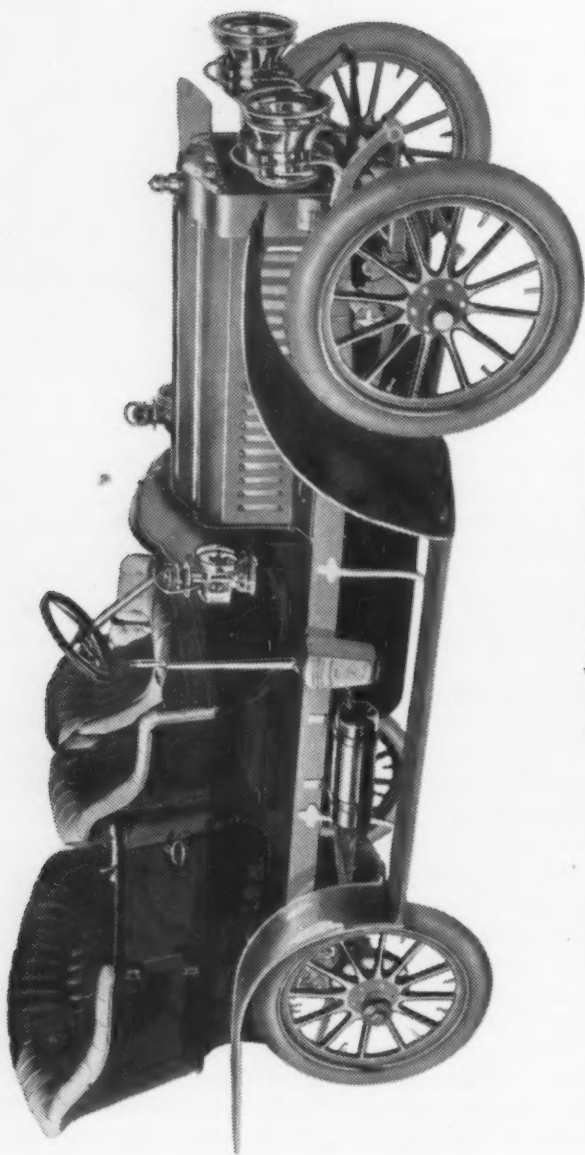
Cedrino, Lancia and Tangerman on Boat Going to Cuba

next year, as there is every chance that the winter in the North will be severe and the hotels in that event will not be able to care for the people. However, all these points will be settled later and we must now make ready for the events in the North."

Hand Book of the Automobile

A budget of hints and helps for the selection, care and use of motor vehicles and for the avoidance of road-side troubles. By Charles E. Duryea.

This is a book of convenient size for the pocket, published by the American Motor League, New York. The name of the author guarantees it to be a work based on sound practical knowledge. We confess to having read the hints and helps with appreciative interest. If every automobilist would secure this little book, read it through carefully, marking the parts for regular reference that apply particularly to their own case, we guarantee that "roadside troubles" will give them small uneasiness. The book is for sale in this office. Price, one dollar.



HARRISON MODEL B TOURING CAR

Made by The Harrison Wagon Co., Grand Rapids, Mich. Vertical 4-cylinder motor, $4\frac{1}{2}$ inches bore by $5\frac{1}{4}$ inches stroke; wheel base 115 inches; tread 54 inches; tires 36 x $1\frac{1}{4}$ inches; sliding gear speed change; all gears always in full engagement; side entrance tonneau body seating seven passengers; weight 2,850 lbs.; price, including cape top, storm curtains, mats, horn, tools and five lamps, ready for extended touring, \$5,000.



For Women Who Motor

By A. Lenalie

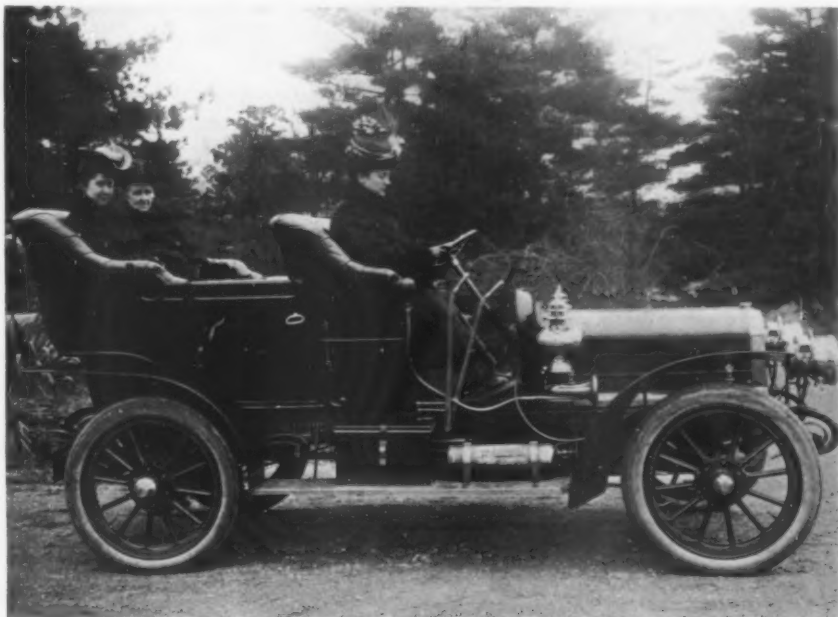


This department is conceived with a view to presenting distinctive features that are of special interest to women motorists, and is open to contributors for the discussion of all timely topics in this line.



IN our March issue, we called attention to the noticeable dearth of women's automobile clubs in America and invited comment relating to the possible reasons governing these conditions. A

club woman, have given considerable attention, and I am glad you have opened your pages to correspondence on this subject. I want to offer my solution of the existing inactivity in this direction. A woman naturally likes to feel that at her club she will meet only congenial



A MORNING DRIVE THROUGH CENTRAL PARK, IN SEC'Y GORMAN'S WINTON MACHINE
Mrs. John Farson, Sr., Mrs. John Farson, Jr. and Mrs. H. Clark

prominent club woman responded as follows:

Editor, Woman's Department, THE AUTOMOBILE MAGAZINE:

The question you raise concerning club organization among women motorists in America is one to which I, as a

spirits. Now this she would not be at all sure of in a club where the essential qualification to membership would practically be the possession of an automobile; this, unfortunately, does not necessarily presuppose a social level, nor carry with it a certificate of cultivation and re-

finement—at least, such has been the experience of men in their motor clubs.

In England, the divisions of caste are so much more definitely outlined that this difficulty is not so apt to arise, and clubs like the organization you mention, The Ladies' Automobile Club of G. B. & I., are possible. There women of position and title meet freely on the ground

notes of my touring trips and trust to be much benefited by other experiences in this line that will naturally be related in your pages.

Congratulating you on the new department, and wishing you all success for it, I am,

Cordially yours,

F. K. H.

Poughkeepsie, N. Y.

I have also received a communication from another enthusiastic motorist who very much approved of my premise to this department, in the March issue, to the effect that the spirit of womankind is of the "Barkis-is-willin'" order, when it comes to handling their own machines. She said that the one supreme obstacle that stood in the way of running her own gasoline car was the actual physical force required to crank the engine.

But, judging from the straws of invention that I've found floating about automobiles, it seems that this one great obstacle is in a fair way to be removed by the different devices that have come to the front for starting a gasoline car automatically, and which is now operated from the seat with little difficulty. Of course, any achievement in this direction paves the way to many a long, pleasant outing which has hith-

erto been tabooed for our sex except through the exertions of a driver.

Now, I want to recommend to my feminine readers' notice two of the most practical and common-sense suggestions of which I have ever availed myself—they are especially essential to the woman who has occasion to drive her own car:



A GROUP OF ENTHUSIASTIC WOMEN MOTORISTS
Taken at Ormond, Fla. Mrs. Hodgkins at the wheel

of a common interest, sure of not being brought into enforced contact with those not of their own class. I offer this merely as my point of view regarding this condition, and hope to hear from others on this subject, as coalition in the shape of congenial clubs is certainly to be much desired.

A little later I will send you some

First: Before undertaking any automobile trip, long or short, start your machine and watch it carefully while in motion. The vibration of any part shows immediately that some attention is necessary, which, if given, will forestall a possible breakdown. Now, isn't that simple when you know it—like all great truths?

Secondly: If you are jaunting and you have exhausted the limitations of the touring map with which you have provided yourself before starting, and, perhaps, are going to penetrate into by-paths, or outlying districts somewhat remote from the main arteries, just trace the consecutive village points between your points of departure and your destination on any ordinary map of the district you are going to cover, and then interview some livery-stable man between each of them. What he doesn't know on "good roads" won't be necessary for you to learn on this particular trip. Possibly, if the motorist who had such an unfortunate experience with the roads of the "Pine Tree State," as related by Robert Bruce in our March issue, had followed this simple plan, the tone of his letter would have been different from that quoted.

One woman acting in this intelligent manner, and who recommended it and gave me the benefit of her experiences, traveled from East Orange to the heart of Michigan, a matter of 1,400 miles or so, last July, in less than a week, in her Franklin car, with no accidents or enforced delays beyond having to have to repair a simple leak in the gasoline tank, which required an outlay of 75 cents. It is true she was accompanied by "the brindle bull," Tiger, and her husband, who doubtless afforded some aid; but that's outside the main issue in this case, which is that her experience as "personally conducted" on this trip shows what will be eventually done by other women,

unaccompanied, if desired. I am told that "Tige" was really a most valuable accessory, sole occupant of the rear seat and acting as guardian-extraordinary when the other two tourists saw fit to alight *en route*. No other guard was necessary; all valuables were left in his care and he proved himself a true descendent of "Dog Tray"—progenitor of all faithful canines.

They covered the hundred miles constituting the "century run" after leaving Buffalo in five hours, an average of twenty miles an hour—deducting swims for Tiger in Lake Erie, and during the entire trip the tourists were unaware that this was the record week of last summer for unparalleled heat, having intentionally cut adrift from "Newspaper Row" and the thermometer. This method of keeping cool need not necessarily be regarded as an automobile conspiracy against summer resorts.

In addition to other pleasant features, it is good to know that in no part of their trip did they meet with aught but civility from the residential portion along the way. This causes me to reflect on the probable truth of what I have often remarked in the course of my own observations: that it generally takes two to create an antagonistic attitude. Certainly, if there ever were two people (ignoring Tiger) fore-ordained as exponents of the Biblical "soft answer" that consumeth wrath before it has reached an active point, it is Mrs. and Mr. Van Riper, whose trip, judging from their glowing description, seems to have been one of unalloyed happiness.

When we add to the latest mechanical improvements that have lessened the strength required for driving the car, a better knowledge of the mechanism of our vehicles than is customary with women at present, we shall be ready to enter the long road of gasoline; where-

as, we have hitherto been confined to the short road of electricity.

This month my investigations on this subject took me on a tour of inspection through the New York school of automobile engineering. I found that although no woman has as yet been admitted to the owners' or chauffeurs' course, many of them have applied for enrollment; but have been refused, ow-

machine thoroughly and past mistress of every automobile expedient.

Certain it is that unless one is, temperamentally and financially, inclined to afford the luxury of a perfectly trained chauffeur in all his glory, the next best essential is to follow the advice of Socrates: "Know thy machine"—and know it well.

I don't mean simply to know what



THE LUXURIOUS SIDE OF MOTORING

Mr. Jas. L. Breeze and party with touring car, at Ormond, Fla.

ing, I am told, to the fact that these institutions are already over-crowded by the ranks of the masculine contingency. These attempts point conclusively to the fact that women motorists are anxious to place themselves outside the necessity of securing masculine aid to manipulate their motors. With my prophetic, optimistic eye I foresee "every woman her own driver," as ready for any emergency that may arise as her brother; understanding the idiosyncrasies of her own

pedal to use for the pianissimo and fortissimo speed of the instrument; I mean that she should have a thorough technique, so that she may extract the greatest amount of enjoyment from her motoring activities with the least expenditure of nervous tissue.

There still remains the luxurious side of automobiling to be reckoned with—the side that includes one's own driver and the service of an up-to-date garage. The new New York auto-garage of The

Decauville Automobile Company, which is said to be the finest in this country, as well as far ahead of anything on the other side, has reached such perfection in all its appointments that it is specially adapted to women's use. Its cleanliness alone would endear it to their hearts, when occasion arises for them to avail themselves of its many advantages.

Entering what might be termed the reception room of the garage, we find awaiting us machines of the different types handled by this company, decked in their best bibs and tuckers, standing about on a beautifully polished floor. Around the walls are a most gratifying number of silver cups and vases—trophies of victorious contests. From this room a winding stairway leads to the floor above, where one finds "all the comforts of home." There are shower baths where, coming in hot and dusty from a long run, one may enjoy a luxurious bath; there are lockers in which to keep one's changes of clothing; and there is—most unique feature of all—a sort of club room for chauffeurs, where they may play billiards or otherwise amuse themselves when off duty. This is connected by telephone with the office so that they may be quickly summoned when needed. This should certainly operate towards securing prompt response to any call. Beyond the reception room is a storage room for vehicles and here a post office has been established for the distribution of the mail of employees or, when desired, of patrons, and high above all this shifting scene is the little "sentry box" of the starter, from which he controls the movements of all men and machines entering or leaving the building.

Notwithstanding a touch of levity in the following communication, its writer is evidently sincere in her desire for a representative club of automobilists, and

can be counted upon to help towards its attainment. We shall be glad to receive the notes of the Jamaica club referred to. Editor, Woman's Department, THE AUTOMOBILE MAGAZINE:

Your article apropos of women's automobile clubs has interested me. Certainly, let us have one—but, an' it please you, let it be a club for automobilists, and not a jiner's institution, which every club woman in town will want to join to add another badge to her 57 varieties. It is enough to hurt one's sense of the ridiculous to see the angular spinsters who preside at mother's meetings, and women whose life-work has been ordering good dinners for their lords and masters (far be it from me to fling "asparagus" at a woman dutifully performing so absorbing, elevating and often thankless a task) running clubs for professional women.

One thing against the club—there is a danger of getting sunburnt in the glaring light of publicity, and would the Sunday editors run our pictures on the near-society page, in which are accounts of club doings?

I leave soon for Jamaica, where there is a club such as you suggest, I am told. Should you care for it, I will send you an account of how its "wheels go 'round."

Interestedly yours, G. O.
New York, N. Y.

Not What He Wanted

"To decide a bet," said Mr. Vox Populi, entering the editorial sanctum, "will you tell me what the mean temperature was on this day five years ago?"

"There are the files," said the editor; "look it up. Well, did you find what you wanted?"

"No, I didn't."

"Why, it's given there, all right."

"I know it is, but it's not what I wanted. I lose."—Cleveland Leader.

Notes on Advance Styles in Costumes and Novelties Specially Designed for Motorists

This mixed brown melton in Empire style is a pretty and serviceable garment for general wear. The lines of the coat are particularly good and not at all extreme. The turned-over collar and the cuffs are of brown suede leather. The big buttons are also of this leather, bound in brass. Such a coat will be needed on cool days all through the season.

The greater number of spring garments are cut in Empire style, both the satin-gum garments, designed especially for stormy weather, and the linen and pongee dust-coats, though a few of the long, semi-fitting ulsters are shown for those of more conservative taste who fear that the extraordinary popularity of the Empire coats will make them too common this season. We show a most attractive example of this style, in heavy Shantung pongee. Straps of fine plaid in the tones of the coat, piped with dark brown, finish the sleeves and the deep, turned-over collar. Two wide straps extend over the shoulders, back and front,



A JAUNTY MELTON COAT
The Scandinavian Fur Co.



SHANTUNG PONGEE ULSTER
The Scandinavian Fur Co.

terminating in cunning little pockets in front. The sleeves are a straight coat sleeve, gathered rather full at the tops. Big pearl buttons give a very effective finish.

One of the most serviceable caps for motoring is a close-fitting one of leather, which may be turned inside out, and lo! there is a pretty cloth one, trimmed with leather. There are ear-pieces with straps, which are either buttoned over the top or under the chin, at the wearer's pleasure.

The Scandinavian Fur Company say that all their materials are so treated before making up that they are absolutely spot-proof—that is, any spot can be readily removed; which, as we all know to our sorrow, is not the case with materials that are not so treated.

Among their new spring models they are showing a seamless coat for men that is unique. It is cut from one piece, yet is so shaped that it fits as well as an ordinary seamed garment. This is one of the novelties whose popularity must be decided by time.

A Wee Auto-Crat

This little lady is a born "Auto-crat," and probably, as the vestpocket periodical of this name describes itself, "a magazine of automobile comment and philosophy," of which she gives outward evidence by thinking and motoring extensively. Most of her valuable and, no doubt, enlightening views are bound up in her little sunny head as yet, as she is but a year old. Since she arrived at the mature age of two months she has made a record of from 50 to 100 miles daily motoring. I'm not quite prepared to say to mothers, of course, that the infallible rule for raising infant prodigies is

A life on the bounding car,

A home on the roads afar,

but here we have Miss Marion Spooner, this wee, winsome lassie, very much *en evidence* as convincing proof. She has just returned from Cuba, where she at-



tended the road races and other important functions. Miss Marion entered upon life's good-road journey with an advance equipment of two teeth and an abundant head of hair. She has already acquired a quite sufficient

vocabulary for a self-contained, conservative young motorist. I believe it consists principally of direction sto her two faithful chauffeurs, Mr. and Mrs. F. Edward Spooner, who stand sponsors for her. As diminutive Queen of American Motordom, she usually bestows her royal favor on an American machine, but I really must not tell the name of it, for women are capricious and she may change her mind when she grows older.

And now that the time is near when our over-zealous women motorists are liable to become involved in some altercation with speed regulators, let me give you an all-round rule which was given me one day by a nervous friend when we were in imminent danger of being run down by an approaching motor: "Keep perfectly calm and run for your life." The beauty of this rule is that it is double-jointed. It can be used either by fleeing pedestrians or by guilty motorists when road-custodians pursue.

Quite Essential

"Young Roxley is learning to be a machinist."

"Ah, very commendable; wants to have a trade so that if anything should happen to his fortune he can——"

"Nonsense! No, he simply wants to be able to keep his automobile going."—Philadelphia Ledger.



MRS. J. FARSON, JR., AT THE WHEEL

Most Racing Cars Are Freaks

By F. Ed. Spooner

What of Ormond and its meet of 1907? The question arises on all sides nowadays, for results this year were again unsatisfactory to the builders of cars of standard racing pattern, cars following closely the regular lines of stock cars of the various manufacturers.

Freak cars again won out at Ormond. took away the honors. None will ever credit, for instance, the Stanley steamer, with being a legitimate pattern of the stock car, of having anything in common with the regular product of its maker. None will credit the great eight-cylindereed 200 H. P. Darracq car as being a model of anything turned out for the regular trade. The steamer and the Darracq, the latter without differential, divided the main honors of the meet, the former with the one mile record of :28 1/5, the Darracq with the two miles in :58 4/5. The cars constructed on the lines of regular touring cars of marketable pattern won few honors, and yet those who spent money like water to achieve results legally and according to the rules of the controlling body of the sport, gained few returns for their trouble.

Are men going to go on and on, building racers, retaining drivers, paying expenses of the drivers, mechanics and helpers, to be tricked out of the honors sought by freak monsters designed alone for beach racing? These cars were not capable of traveling to Havana for the road race, they would never be rated as Vanderbilt racers, and when Ormond was over, their date of useful existence was passed and gone until another meet on the sands.

Can Ormond's great meet be run with freaks? It will have to be in future if they are allowed to compete.

Is there a solution possible of this

problem of the propagation of Ormond's annual events? It would seem so, and Mr. E. Rand Hollender is the author of it. Mr. Hollender's firm, the Holtan Company, brought Lancia, the Great, to America and sent Lancia, Cedrino and a half score mechanics to the sunny South to do all possible for the Ormond meet and incidentally to win fame for the Fiat against cars of legal pattern. In return for the expenditure of fully \$5,000, the Fiat agents received little or nothing in the way of advertising. The Napier Motor Car Co. at considerable expense brought a big racer to this country, and Walter Clifford-Earp came to drive it. The Napier won honors, but the mile in :28 1/5, the two miles in :58 4/5, so far overshadowed the mere winning of a race of one hundred miles that little honor remained for the Napier.

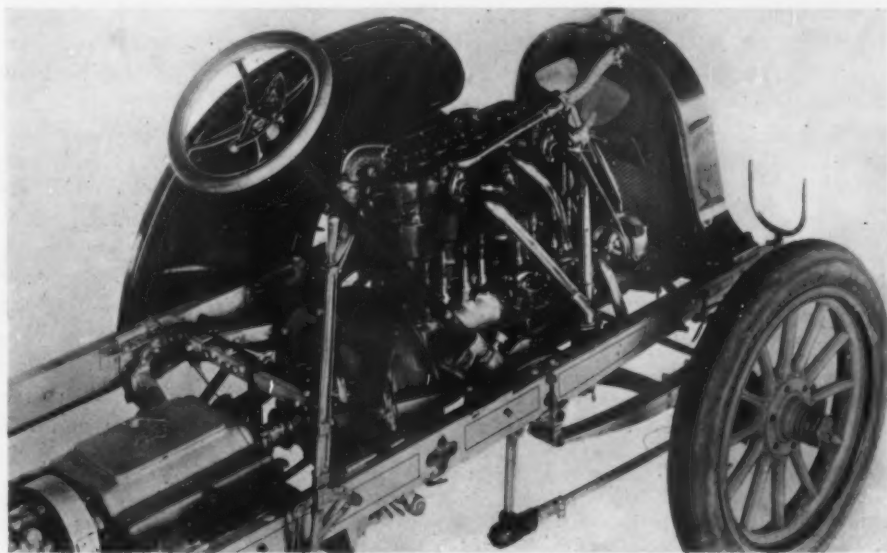
Makers and importers do not care to build beach skimmers that have no value as testers of motors and construction. They do not care to enter the freak class but do desire opportunity for honest tests of the cars of their manufacture, constructed along the lines laid down by the controlling organizations of all countries. Given to understand that the rules would be lived up to at all times, they paid big entry fees and liberal expenses to men to go and fight it out. And for what? Why to be beaten by cars not within the pale of practicability, cars to be termed only freaks and no more.

Mr. Hollender made no threats in his talk on Ormond, but he sealed the doom of the great Ormond meets as international affairs without threat when he said: "The makers of cars in Europe will not enter again at Ormond. They stand together in the Importers Association and will stand shoulder to shoulder

in this matter. Providing Ormond can be run without the European cars, then it will have to be run in that way unless there is a change."

When pressed for a suggestion, Mr. Hollender said: "Run the long races first and require that a certain average speed be maintained in each of these long races, providing a car is to be qualified for the final race. For instance, open the program with the one hundred mile race. Require for that an average speed of sixty miles. Run the fif-

cars go wrong under the strain. They would not be so likely to go wrong at the shorter distances were the long races run first of all and the motors given a thorough test in these. By the means I suggest the field would be cleared of freaks, for none but cars of legitimate pattern would ever meet the requirements of the long races. With a program so arranged and with the requirements I mention, there would be no entry made of cars of freak construction and none but cars meeting the every re-



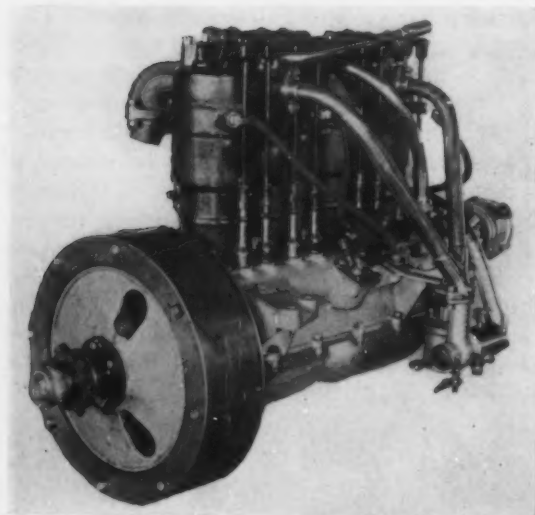
CHASSIS AND ENGINE OF POPE HARTFORD MODEL F

ty-mile race second on the program, and require for that an average speed of sixty-five miles an hour. Then put on an hour race and require a speed of sixty-five to seventy miles an hour for that. Cars which complete two of the three long races and are within this average to be allowed to take part in the shorter contests of fifteen, ten, five, two and one miles. As at present arranged, the Ormond programs are wrong. These sprints cause the drivers to turn their motors over faster than is safe and the

requirement of the racing rules of all countries would be found in the list."

This suggestion of Mr. Hollender met favor in other quarters and every effort is to be made to so arrange matters that another year will see an immense entry list of legitimately constructed cars in the events at Ormond.

Manager W. J. Morgan had decided ere he learned of the ultimatum of the importers, to program for next year a one hundred mile race with a time limit of one hour. Instead of "Two miles a



IGNITION SIDE OF POPE HARTFORD MODEL F

minute" as a slogan, there will be "One hundred miles per hour."

One thing seems certain. International competition must be fostered at Ormond for the future, as the American makers are this year preparing to enter the field actively with cars capable of bearing the Stars and Stripes with honor. There are building for the Vanderbilt race not less than fifteen to twenty cars which promise to rank with the best which Europe turns out. Announcement of the construction of two Pope-Toledo cars, two Thomas cars, one Royal, three Frayer-Miller, two White cars, a Maxwell-Briscoe, a locomobile and several others have been made and all these will be of from 110 to 120 H. P.

Italy, Germany, France and England are certain to oppose America in the contest for the Vanderbilt trophy, and these countries must be induced to meet America not only on the road but on

the beach next spring. And it will be spring, for Ormond's dates are to be set for late in March instead of in January when the weather is so uncertain. With the later date good weather will be certain, the makers of American and the importers will have finished with the annual automobile shows and the opportunities for competition will be keener, as the makers, ordinarily too rushed to get through cars for the shows, will find the opportunity after completing the show cars to prepare American racing cars for the Ormond-Daytona, the Atlantic

Beach and other shore contests. The showing made by American cars of the gasoline type this year was so lamentable that Americans were shamed, but the outlook for 1907 is very bright. Let us hope that the management of the races will not prove so blind as to again open the doors to cars of freak construction and that those who would abide by the rules be given every consideration.



EXHAUST SIDE OF POPE HARTFORD MODEL F

Men and Motors

By F. Ed. Spooner

Coming Motoring Events

"What's the next event on the card?" The question is asked daily, for every automobile dealer is anxious to get into the game on every possible occasion. The season promises much in the way of competition as a matter of course. The Wilkesbarre hill climb, plans for which will be announced at once, the Atlantic

fuel test also to be conducted by the Motor Club. The Vanderbilt race comes as a fitting climax to what promises to be a grand year of sport and recreation, and every driver of an automobile is on the qui vive.

New York Motor Club

Speaking of the New York Motor Club, that organization promises to be-



CLIMBING WILKESBARRE HILL.

City meet Easter week, the Cape May meet, the week of Decoration Day, the Dead Horse hill climb May 30 and frequent events thereafter will all draw a goodly entry list. The Jacksonville meet on Atlantic Beach may not draw so largely from the North, yet it will be quite an event and the makers will be interested in the outcome. The season promises lively competition up hill, on the beaches and in touring and endurance contests. The Glidden Tour is being much talked about, as is also the Economy Run of the New York Motor Club and the six-day non-stop run and

come almost a national body with the present year, for it has on hand a number of events which promise to be of international importance. The six-day non-stop run with the Burrell tire test will be events of importance this year, with Asbury Park as the headquarters of the competition in all probability. The Economy Run will be an event in which pretty nearly all the makers will take part and other events of the season will keep the officers of the club busy at all times. It is, therefore, commendable that the people most interested in the club's success are seeking men who will obliterate self

and set their personal comforts to one side to take an active interest in the club. Hitherto the officers of the club have as a rule been such in name only, but now men of the caliber of W. B. Hurlbut, manager of the Packard Motor Car Co. of New York, and others of his class are being selected. Mr. Hurlbut consented to act as one of the Board of Directors only after much urging, and in agreeing to act this candid gentleman said plainly, "I know I'll make myself unpopular, for I shall take some interest in the affairs of the club and things must move. Under such conditions I don't think they will want me to act." Upon being assured that such was not the case, he agreed, and others of the class of Mr. Hurlbut are now being sought. They are hard to find, but find them they will and the active officers of the Motor Club believe that the organization will thrive this year and grow amazingly. There is no reason why the New York Motor Club, with the trade of New York, should not outnumber the Automobile Club of America or any other motor organization in membership and if conducted rightly in interest, the youth and enthusiasm of the members being in its favor.

Tough Tires

"A million miles on diamond tires" is an attractive title for a booklet issued by the Diamond Rubber Co., the contents of which are testimonials from innumerable users of Diamond tires during the season of 1905. These users, all prominent men, commend the tires highly, and each gives some mileage figure, the addition of which brings the grand total to over a million. The satisfaction of the users is apparent in every line of the letters, and quite naturally the Diamond Rubber Co. has made capital of such a collection of letters, the value of which is not to be reckoned in dollars and cents. And this brings to mind the fact that

Frank Burrell, a good fellow, had his troubles with tires of the Diamond make and promoted a tire test which was all but won by the very tire which had given him so much trouble. The Diamond had been demonstrated during the last two years very thoroughly and bears a reputation not to be purchased in the open market except through steady, reliable work.

Southern Circuit Next Year

Miami promises to be the starting point of the great Southern Circuit next year. Havana had its opportunity this year and lost out in many ways through its treatment of the prominent men who were anxious to make the annual event in Cuba a great success. Returning visitors from the Havana meet promise to go and sin no more and by common consent they promise to go only to the borders and no further. Proprietor Merrell, of the Royal Palms at Miami, is consequently happy, and preparations are being made by him to entertain a great throng in 1907 at the great Miami auto-boat meet on Biscayne Bay. Manager Morgan practically concluded all arrangements to conduct there a huge auto-boat tournament and to conduct it at a time when tired exhibitors from the two big National Shows at New York and Chicago will be able to lay work to one side for a time to fish, boat and enjoy good sport at one of the most delightful spots ever known. The circuit trotters of the present season spent many a happy day with "Mein Host" Merrell in boating, fishing and lolling the time away and every one promised to return to his hospitable roof another season. John C. Wetmore, a connoisseur of good things in the way of resting places, gave Miami his unqualified approval and spent a full week trying to make up his mind as to whether it was not best to forever renounce the struggles of New York, to settle down and enjoy himself there.

Hopeful Fishers

And while on the subject of Miami, it is well to relate a story of a record-breaking fishing trip taken by Nathan Lazarnick, the photographer, who promised to pilot a party to the happy fishing grounds, John Chetwood Wetmore, Mr. Nichols and the writer. The time was Saturday, the day ideal, and a boatman was secured after energetic hustling. The boat, the property of Captain Tom, from Barnegat Bay and Toms River, was a sail boat aided by a motor, a sort of a

lower of Isaac Walton, providing, of course, they will but leave the only "Jonah" behind. Owing to his age he was not thrown overboard this time to the whale of history or, what is better, to the sharks, which infest certain waters around Miami and which prove great sport to the seeker of big game.

Wetmore's Luck

And while speaking of Wetmore, it might be well to state that as long as Jai Ali remains the national game of Cuba, we may expect to have the Cuban road



Major Miller in the middle, telling about the fun he will have from his wager of \$10,000, to fly in a balloon from New York to Franklyn.



PERCY P. PIERCE AND CARL PAIGE
Veteran Automobilists

combination affair. The sociable host, Mr. Merrell, loaded the visitors with many things good and the trip started merrily. It ended just as merrily after a visit to the reefs, but that was all. The fish either would not bite or there were none, for the trip was a record-breaker in that no fish rewarded the anxious fishermen. Everyone caught a splendid case of sunburn and the trip was therefore not without results. In justice to Miami, let it be said that every other boat the same day brought back loads of fish of every known sort, and the spot may be recommended to any one who is a fol-

lower of Isaac Walton, providing, of course, they will but leave the only "Jonah" behind. Owing to his age he was not thrown overboard this time to the whale of history or, what is better, to the sharks, which infest certain waters around Miami and which prove great sport to the seeker of big game.

race put forth as a greater event than even the Vanderbilt race. "Jonah" likes Jai Ali and attends every performance when in Havana, wagering his money freely on every game. Incidentally he comes out ahead and admiring the really game as he does believes there is nothing to compare with it. His luck is proverbial, for he can't lose. At one day of sport he mixed his Spanish a little and in purchasing the ticket in the mutuels called for the ticket he did not want, white instead of blue. Innocently enough he shoved the ticket into his vest pocket and all during the game rooted with the

most enthusiastic of the club men for the blues. At the close of the game, when the blues were beaten, he felt quite put out and pulling the ticket from his pocket found he was down on the whites and not the blues as he had supposed, whereupon the Wetmore pocket book bulged with the unexpected gains. This accident in Wetmore's Cuban speech was not the first error he had made after carefully studying his guide book, for at the barber shop, when the boy asked him whether he would have a shine, he replied something or other and there came very nearly being a tragedy, for the New Yorker had, instead of telling the boy he would have a shine on the morrow, called the boy a really terrible name. The barber saved the day for Wetmore, who sought some one to translate for him ever after.

Gloomy Times in Cuba

And it was Jai Ali or nothing for the visitors as a means of amusement in Cuba this year. Senor Ruben was not there to give them a good time and the members of the Havana Racing Association were too busy to think of the visitors who spent their time searching alone for enjoyment in a strange land. After Ormond, Palm Beach and Miami, where Mein Hosts Anderson and Price, Fred Sterry and H. W. Merrell saw to it that the newspaper men enjoyed themselves from start to finish, Havana and its Association compared not at all and what comparison there was seemed odious. But newspaper men have a faculty of looking out for themselves anyway and perhaps nothing would have been said had it not been for the utter lack of courtesy toward the prominent tradesmen whose presence made the Havana road race possible. These men were completely forgotten apparently, and were given little or no attention. Their dissatisfaction spread to the newspaper men, for these men, anxious to return to

Havana another year, foresaw certain failure in inducing men of the importing and manufacturing trade to return to so inhospitable shores.

The Good Times Coming

The Southern Circuit of next year will be an event in which all may take part if the plans do not miscarry. As at present planned the circuit will start with the tournament on the waters of Biscayne Bay and will continue at Palm Beach on Lake Worth. The races at Ormond on the beach will follow, starting late in March, and the circuit will continue at St. Augustine and then go to Atlantic Beach, after which the circuit followers will travel north to Atlantic City and then to Cape May. In all probability Miami's date will be set for about March 1, the meet lasting a week with three days of racing and a like number of days to be devoted to pleasure. The meet at Palm Beach will take a week and Ormond will then come during the latter half of March. The shows will then be over and hundreds hitherto barred from Ormond by participation in both the New York and Chicago shows will be able to spend an enjoyable vacation in the sunny South at a time when trade affairs are very quiet in the North. The advantages of the later dates for the southern meets will be many in addition to the opportunities presented for attendance on the part of those hitherto barred, for the weather will be much pleasanter and in addition the makers and importers will have had more time to prepare for the events. Hitherto the American makers have been placed at a distinct disadvantage through the meet coming immediately after the New York show and just before the Chicago show. The later date enables them to prepare racers for the great contests, something which they have been unable to do in the past owing to the rush to prepare cars for the shows.

Americans Must Encourage Racing

The time has come when the American makers must prepare for the fray and enter into the racing game with a zest. Hitherto the Americans have taken a back seat, too busy to bother with racing, but it is probable they now realize the value of racing and of success in speed contests. To many the comparison of the bicycle business and the automobile business is odious, yet there are many things in common between them. Away back in the old days of cycling, foreign

as good as those purchased from abroad. The boom in home made wheels came with a rush in '93 and it was not long before Americans were selling practically all the bicycles purchased by Americans and were also exporting to European markets where a considerable field for the American wheel was opened up successfully. The boom for American automobiles will grow and grow and finally come to a head when the Stars and Stripes are placed at the mast head in both this country and in Europe.



EZRA FITCH IN HIS WHITE CAR

A. G. VANDERBILT IN A CADILLAC
at Ormond Beach

cycle riders on bicycles of foreign make were the aggressors and when records fell it was almost invariably in Europe or on foreign bicycles in America. The wheels of European make were the best sellers in America for many years. Suddenly the American riders with American bicycles started record-breaking and just as suddenly the people of America recognized in their home product wheels

American Racing Cars Coming

The indications point strongly to a great array of American-built racing cars this year. The latest entrants into the field of racing, the Oscar Lear Automobile Company, intend to place in the field three racing cars of 110 H. P. or more. Lee Frayer is working night and day on these cars and from those who have looked over the designs it is learned that

the Frayer-Miller racing cars will be formidable in every way. The success of the touring car made by the same firm in track and road events speaks well for the probable success of the racing cars and a lot of interest will be taken in the outcome of the work of Mr. Frayer. Others who have promised certain entries for the Vanderbilt team are the White Sewing Machine Company, who are to have two steamers in the field; the Pope Motor Car Company, with two or three cars; the Maxwell Briscoe Company with one, the E. R. Thomas Motor Car Company of Buffalo with a new car and probably the two seen during 1905, the Locomobile Company and many others. From twelve to twenty entries are promised for the eliminatory trials in September, and some good sport is promised then. In all probability those who enter from European countries for the Vanderbilt race will have a team of Americans on cars which will do credit to America and bear out the predictions of W. J. Morgan of the success of the American-built cars in 1906, a prediction made in these columns several years ago.

Positive Rules for Vanderbilt Race

While on the subject of the Vanderbilt race which, through the efforts of W. K. Vanderbilt, Jr., is to be again run in America, it might be well to remind the American Automobile Association that a positive statement that cars qualifying for the American team will not be eliminated might add much to the confidence of the makers. The question is being put daily, "Will it be possible to win a place on the team and start?" and without definite reply. Building racing cars is expensive and many makers, including E. R. Thomas of Buffalo especially, would like to know positively whether the elimination trials will be final or whether the Race Commission will again close out successful cars for unsuccessful

ones, as was done last year. The experience of Mr. Houpt, whose Thomas Flyer was shut out after qualifying under adverse circumstances was rather bitter, and Mr. Houpt, a good sport and a good spender, proposes to find out this time before he spends money and time and risks his driver's neck, whether qualification means qualification or elimination. In last year's race M. Roberts and his mechanic drove the race to a finish with a broken battery box, a disconnected battery wire, and yet after the suffering entailed by the spilling of the mixture over their feet and the holding of the broken wire to the frame, they were not allowed to start in the final. The defects were small and the lesson a dear one, possible of correction beyond a doubt before the final. The car proved a good one in every way, yet was debarred from the final, another car which did not finish being substituted.

Course of the Vanderbilt Race

There is much speculation down on Long Island regarding the course for the present year. It is taken for granted that the race will again be run in Nassau county, as the officials gave their unqualified approval last year and promised Chairman Robert Lee Morrell that another event of like character would be sanctioned without question. That there are other courses than the 1905 circuit is doubtless true, and undoubtedly Chairman Morrell has gone carefully into the question and has some ideas in the matter. Until he has consented to again act as chairman, Mr. Morrell will probably say nothing. That he will consent in view of the popular demand all over the world that he do so, seems altogether certain. For Americans feel that none other than Mr. Morrell should be given charge of the great race. His management last year met with world-wide approval, not one single objection having been record-



OFFICERS OF HAVANA RACING ASSOCIATION.

ed, either in this country or in Europe. The announcement of Chairman Morrell that he would not serve another year met with such world-wide disapproval that it is probable the popular gentleman will reconsider his determination.

One More Sigh Over Cuba.

To again return to Havana. Chairman Morrell managed the Vanderbilt race acceptably and no accidents happened to the spectators, yet that might have been good luck, for certain it is that the deputies could not control the spectators who overran the course. The Havana Association managed the Cuban road race also without accident, but the Cubans took no chances, for their course was absolutely clear of people and animals from fence to fence for the entire distance, nearly sixty miles. Cubans promised a clear course, stationed 1,000 Rural Guards along the course on both sides and then kept every car off except those in the race. They prevented George P. Tangeman going out in the regular course of humanity to attend to his stricken drivers and their mechanics, three of whom were reported (falsely) as being fatally injured. Surgeons were not even taken over the course in auto-

mobiles when not a racing car was on the course, the sole remaining car being held at San Cristobal. Were Chairman Morrell to conduct the Vanderbilt race as strictly it might be well, but it is probable that there would be more complaints than last year, yet, as a matter of fact, that is the way it should be conducted. Lancia, the great Italian driver; Demogeot, the Speed King; Cedrino and Bernin all commended highly the absolutely clear course in Cuba along which they could see but the double line of Cuban guards and not one spectator nor one animal to prevent perfect driving. In the Vanderbilt race it was different, as will be recalled, for the drivers were compelled to take every chance and hew out their course through a solid bank of spectators who crowded out on the course and then crowded back again. Were efforts made at an early date to secure soldiers as guards for the Vanderbilt course, it might be that success would crown those efforts. At any rate there could be no harm in making the trial.

Lancia Coming Back Again

Apropos of the Vanderbilt race. The Great Lancia says that nothing but a serious accident will keep him from returning for the race of the present year. He will bring with him a faster car even than that used last year. Lancia's ill luck is so proverbial that few will consent to

CUBAN RURAL GUARDS
Taking positions along the race route

take him seriously in the coming race. His record is rather against him. Yet Lancia's ill luck must desert him some day. He cannot go on forever losing great races through slight accidents such as has been the case in event after event. His record of a year is really remarkable. With the Gordon Bennett race safely his last year he punctured and lost. With the Vanderbilt race safely won and thirty miles to spare he ran into Walter Christie and the event was lost. With the one hundred mile race at Ormond, the event for which he crossed the pond, safely his he punctured. With the Cuban road race safely in hand he threw his mechanic out crossing a car track and in the cause of humanity he gave up the race to bring help to Batista and to Cedrino and his mechanic. Lancia might have gone on and won had he cared to leave Batista to the mercy of the natives and his humane treatment of his mate brought him honors equal to a victory.

Goose Killing Chauffeurs

Unless they are very careful the chauffeurs of to-day will kill the goose that laid the golden egg and one of the most lucrative of employments will be lost to men who could earn but a bare living in the ordinary walks of life. Men who drive automobiles to-day earn more money by far than our fathers earned as expert bookkeepers, cashiers and in responsible office positions in great business houses. In fact, the chauffeur of to-day, in many instances uneducated and not fit to fill other than a menial position, takes down monthly a salary which is larger than that of many an expert accountant and receives in addition to that commissions which amount to a handsome sum. Yet he is not satisfied, and in many instances is careless and rankly so, causing dissatisfaction with his employer and oftentimes compelling the employment of another man just to do the ordinary work of keeping the car run-

ning. One instance is related of a chauffeur, an ignorant man, whose services were well paid for at \$125 a month. This man turned his car into a New York garage with orders to go over it thoroughly and clean it up. There was nothing at all wrong with the car except dirt and the garage man was rather put out. "That car only needs cleaning," said he. "Just suppose you go ahead and do the work," said he to the chauffeur, who replied indignantly, "I am the driver of this car, not the mechanic." Upon the complaint of the garage keeper that man lost his position, was ordered from the place forever, told not to return and told to ask for no recommendation. He is now out of a position and rightfully so, and very indignant because it will be necessary for him to go back to the bench doing ordinary shop work at hardly more than \$12 a week. Were other garage keepers as conscientious in safeguarding the interests of their customers as this one there would be more satisfied users of automobiles.

Honesty Gets "Fired" as Reward

While on the subject it might be well to relate an actual incident which happened in New York and which is directly the opposite. A prominent publisher had purchased at considerable expense a foreign car. He employed a young man as chauffeur and was very well satisfied. The car ran none too well and the young chauffeur, who had several months' experience in the repair shop of the importer, took it upon himself to take the motor down to the last nut and bolt. He positively refused the proffer of assistance from the garage keeper, and inside of twenty-four hours had the car running perfectly. His nerve in doing his own repair work and in not allowing the garage man to aid at great expense to the car owner, cost the young man his position, a matter which the keeper of the garage saw to at once. The owner took



REO CAR GULLY CLIMBING IN NEW MEXICO

on another man, much older and wiser, who sat in the seat and allowed the garage man to do all repairs, and the second month added about \$100 to the expense of maintaining that car, of which the driver took down a comfortable percentage. Whereupon the now wise publisher endeavored to again secure the young novice who had been honest and failed.

A Good Example

It is sometimes true that the really good chauffeur, the man with a conscience, discovers that he is best fitted for other work and that many a conscientious man is lost to the field. It is related of Joe Tracey, now a mechanical expert, engineer and writer upon automobile subjects, that when a chauffeur he was never content with the running of his car. As the story runs Tracey, while driving for J. Insley Blair, was complimented unstintedly upon the running of the Mors car by Mr. Blair. Tracey said nothing, and on the following day Mr. Blair said, "Joe, this car seems to run even better than yesterday." Still Tracey said nothing, and it was only by accident that Mr. Blair found that in the face of his praise of the car the day previous, Tracey had worked all that night going over the car. Yet the conscientious fellow had said nothing, asking for no commendation for the hard work for which Mr. Blair paid him handsomely. It was

not wonderful, therefore, that a man so constituted should have advanced little by little to a more prominent position.

The Glidden Tour

That touring is going to be the diversion of pretty nearly every owner of an automobile is evidenced by the orders now being given for the fitting out of new cars. Pretty nearly every touring appliance is being fitted and the cost of the many additions to the car is so considerable that few, unless bent upon long journeys, would ever think of undertaking the expense. In view of these facts it is not surprising that those interested in seeing the Glidden tour a success are planning upon many more cars than last year. The interest being taken in the routing of the tour is considerable and the A. A. A. should by all means act as quickly as possible in naming the route. The proposal that the tour pass through Canada to Quebec has failed to meet with approval and the authorities are undoubtedly scheming for other routes which have not been traversed hitherto. In this connection it might be well to remind the powers that be that New York is the proper point from which to start any tour, and that the national highway through Pennsylvania is an ideal touring road according to all advices. A route from New York city through New Jersey and over the national highway to



LEE FRAYER AT WHEEL
Oscar Lear and other friends keeping company

Columbus and then to Indianapolis, with a return trip taking in the Jamestown Exposition or a trip taking in Cleveland, Toledo and Detroit and thence returning eastward through Canada to Buffalo and back to New York through Bath, Binghamton and the Catskills would prove about as popular as any routing which might be made. The suggestion is one which has been received with popular approval by many who took part in the tour of last year. The national highway was always popular with Mr. Augustus Post, who has seemingly decided to devote his time to airships hereafter, and whose successor is largely a matter of speculation.

Chairman of Touring Committee

The selection of a chairman of the Touring Committee should not be hard. There are many men fitted by experience to take the position. Ezra Fitch, of New York, a participant in the Glidden Tour of last year and referee of the Economy Run of the New York Motor Club, a position filled with honor, is prominently mentioned. Mr. Fitch is an ardent tourist. Besides taking part in the Glidden Tour and refereeing the Economy Run, he drove his White steamer into the wilds of Maine for several weeks' hunting, taking with him several other parties, also in White steamers. This tour was one of the most successful of the year. On the Glidden Tour Mr. Fitch came within an ace of taking away the trophy.

Then there is Percy Pierce, of Buffalo. Mr. Pierce has participated in every automobile run of consequence in this country, starting with 1901, and is a finished tourist. His driving in every tour has always been a feature. By experience Mr. Pierce is well fitted for the position, as is also Carl Paige, whose participation in tours for many years has placed him almost in a tie with the Bison.

Another man whose ability to undertake the chairmanship of the Tours Com-

mittee is unquestioned and who has the time at his disposal to give to the office, is Paul Deming, now of Detroit. Mr. Deming has toured all over America and Europe and is a steady, consistent traveler over the roads. As a chairman Mr. Deming would not only be capable but most popular, and beyond the slightest shade of a doubt successful.

Mr. Glidden's Views

While Charles J. Glidden, donor of the Glidden trophy, does not favor observers on the annual tour, believing that the tour should be a contest of gentlemen, there can be not the slightest doubt that greater success would be achieved and that more satisfaction would result were the tour to be conducted on more rigid lines. The plan of deciding the contest last year did not prove altogether popular and a radical change was promised. Just what changes will be made and consented to by the donor, Mr. Glidden, cannot be discovered at the present time, but that there should be changes will not be denied. The rules for the contest should be announced at as early a date as possible, as many are awaiting the conclusion of their plans for the summer until the announcement of the Tours Committee. Without a doubt the "honor" plan of last year kept many out of the contest. Many a maker ceased working for the run when he found that by the votes of the contestants the result would be obtained. One prominent maker said: "We had twenty-two owners of our cars in line for the tour and secured entry blanks, every one of which we could have had filled out within a week. We decided not to do so, however, for we felt that should our car win there might easily be made a claim that owing to the preponderance of one make of car a majority of votes was secured through collusion. We therefore had but two cars in the field, a loss to the tour of twenty cars with us alone. Undoubtedly others felt

the same way." From this same maker was gained a suggestion worthy of a lot of thinking. Said he: "Every car that goes out on the run has every seat taken. There is no necessity of employing observers, for passengers may be changed around daily without annoyance to the guests of the occasion. To one it is as fair as to the other and from the detailed reports the awards may be made without a question." The suggestion seemed so good that it was made to others and without an exception met with approval.

A Change of Heart on Racing

It's different now, for the residents of Nassau county, down on Long Island, want the Vanderbilt race so badly and also the elimination race that they are circulating petitions to the American Automobile Association to hold the race in that county, and are also sending delegates to the Vanderbilt Race Commission, praying them to make up their mind to again accept the hospitality of Nassau county. The change in sentiment is so pronounced as to be laughable. When the first Vanderbilt race was held the petitions circulated had to do only with the stoppage of the race. The contest was finally held successfully. Last year permission was gained only upon the earnest prayers of Chairman Morrell and of the donor of the cup, W. K. Vanderbilt, Jr. Mr. Morrell gained the permission and made himself liable for anything which might happen, taking great responsibility on his shoulders, which were wide enough to carry everything, however. Nassau county asks no one to carry this responsibility now, but has thrown down the gauntlet with a wide open request that the race be held there, this request antedating any request for permission on the part of the A. A. A. All of the roads of Nassau county are thrown open unreservedly to the race officials, and it is quite probable now that

the backwoods road, the Guinea Woods turn, the Isaac U. Willets road, and the letter S turn will be completely done away with in favor of the more hilly course which passes through Roslyn. Three or four very bad turns will be obliterated in this way and the new course will be ideal in every way with hardly a dangerous turn.

Manager Kull of the Wayne Company

Manager A. L. Kull, of the Wayne



Mr. R. E. Fulton, now with the Mercedes Automobile Co., Times Building, New York

Company of New York, is preparing to spend the summer in Europe, placing agencies for Wayne cars. He will tour extensively in France, Germany, Italy and England. "I shall give the Europeans more horse power and more car for the money than they ever had before," said Mr. Kull. The European trip will not keep the Wayne car out of the

contests of the season, however, for every touring contest, every hill climb and the beach races on the Jersey Coast will all be enlivened by the presence of the Wayne touring cars and also the racing cars.

Packard Matters

All up and down Broadway there is not a busier place than the Packard Motor Car Co. of New York, yet the Packard allotment for New York was sold long before the show and quite a number of cars secured from other agents were also sold. The Packard Company is now busy delivering the cars sold. Deliveries are coming regularly, and cars are being placed according to the date of sales as made at the time each car was purchased. Everything goes according to schedule with Manager Hurlbut. Out at the Packard plant in Detroit, according to a man who knows, the output of 1906 is pretty nearly finished. By early June the entire seven hundred cars will have been delivered and then will follow an inventory, after which the 1907 cars will be started. Deliveries on these will be made next October. "The Packard factory is the best managed factory in the world," said a man who was lately in Detroit, and the manner in which cars come and go at the local plant is evidence that there must be management at the Detroit end.

Placing Malice Aforethought Obstruction on Highways

The action of the Chatham, N. J., authorities in voting to raise the cross walks on the Morristown turnpike where it passes through that town, in order that by so doing motor cars might be wrecked, is going to cause trouble for the town in greater measure than for the motorists. Damage suits are certain to result, and the lawyers see prosperous times ahead. When a suburb of Chicago, Glencoe, tried the same scurvy trick, the motorists came to grief on the

cross walks and straight away sued the town for damages. So numerous did these suits become that a change had to be made, as the funds of the commonwealth were being consumed in defense of the innumerable suits. Automobile drivers did not avoid the town. They sought it, met with mishaps, and then went after the cause of these mishaps. They'll do the same thing with Chatham if they are wise. The blocking of the roads in New Jersey started last summer when farmers along the road from Morristown to Bernardsville placed rows of rocks across the highway just around turns. Cars met with mishaps and the farmer who was guilty in one instance smiled until the AUTOMOBILE MAGAZINE photographer came along and snapped some pictures with the remark, "I have the evidence now," when the farmer himself quickly cleared the road.

Against Tradesmen on Racing Board

E. R. Thomas, of the E. R. Thomas Motor Car Co. of Buffalo, has entered a protest against members of the Racing Board being tradesmen. The veteran Buffalo manufacturer gives many reasons for his protest. In this connection it might be well to relate that an American tradesman lost the Vanderbilt race in all probability, for the car made by himself, purely through good sportsmanship. It is said on good authority that A. L. Riker, of the Locomobile Company of America, manufacturer of the car driven by Joe Tracey, refused to enter a protest upon learning that success would attend such a protest were he to make it, the first and second cars in the contest being without the pale and subject to protest through infringements of the rules of the race. Mr. Riker is said to have withheld the protest when by taking action the Locomobile would have been adjudged the winner. The supposition is that the action of Mr. Thomas was taken owing to the elimination of

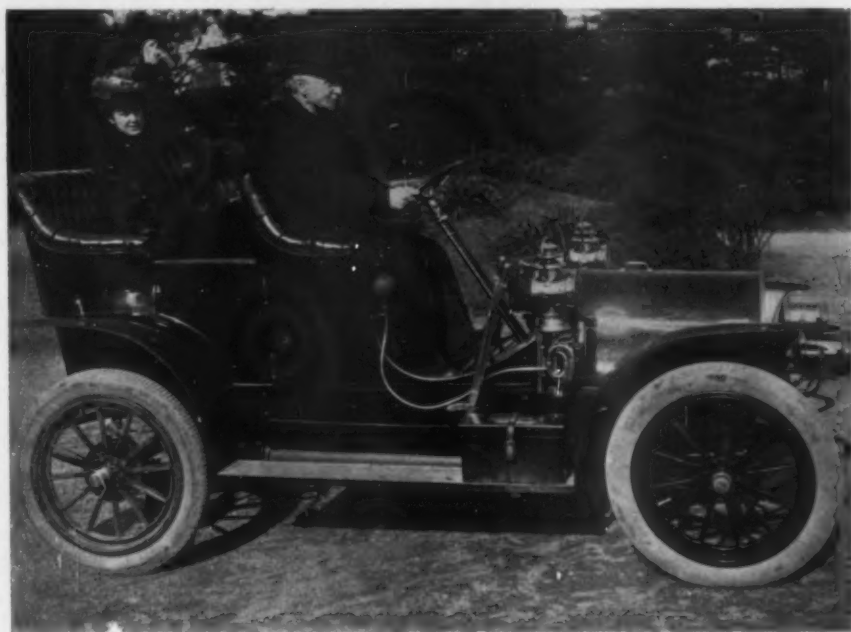
his own car, an unjust action without a doubt, but that this was due to trade influence there is no reason to think. Tradesmen are not dishonorable and are interested in the sport, as is Mr. Thomas.

Eminent Inventor Maxim Manages Auto With One Hand

Mr. Hiram Maxim, inventor of explosives, drives a Franklin car. There is nothing wonderful about that, you say, but Mr. Maxim has but one hand, the

Three Frayer-Miller Cars for Vanderbilt Race

Perhaps one of the most surprising announcements that might have been made came from the Frayer-Miller Motor Car Company some days ago, when it announced that the Oscar Lear Automobile Company would build expressly for the Vanderbilt race and for no other contest, three Frayer-Miller racers of at least 110 H. P. On these cars Lee Frayer is devoting all of his time now, work-



HIRAM MAXIM, THE NOTED INVENTOR, IN HIS FRANKLIN

left arm having been blown off between the wrist and the elbow by experiments with dangerous explosives. In spite of his affliction, Mr. Maxim drives his car perfectly, showing conclusively the ease of control of the Franklin. He is proud of his prowess, and the Franklin branch of the Decauville Company, New York, is proud of Mr. Maxim. Manager Howell has frequently taken trips with the New Jersey inventor, and he says that without a doubt he is one of the most clever of drivers.

ing night and day. That they will be thoroughly good cars and right up to the standard of foreign built racers is claimed by those who know. Mr. Frayer has carefully studied the racers seen in America during the last year, and has evolved many good ideas of his own which will be incorporated. The Frayer-Miller air jacket system is to be followed. That this company will turn out a successful car seems certain, for the past records of the touring car bespeak that. The great drive in the 24-hour

race at Columbus, when the Columbus-made car was driven hundreds of miles at a 1:07 gait, and the 3,202 mile run at Long Branch in 6 days, 15 hours and 27 minutes bespeak thorough workmanship.

Entrance to Heaven Easy Compared to Getting Into Havana.

Providing its one-half as hard to get into Heaven as it is to get into Havana with an automobile, then I shall vote to go elsewhere for my amusement in after life. Those who made the trip to Havana for the road race will surely enter the pearly gates on a pass, citing their success in entering Havana without the utterance of one cuss word. The customs officials evidently planned all the red tape possible to keep the motorists out. To enter Havana personally is no easy task, but when it becomes necessary to load a car at Miami, to unload once more at Key West, to secure the proper papers, there and then have them attested to by the consul, to load again for Havana down long runways of narrow boards, to unload at Havana to lighters, to secure a bond and to have that properly signed and about a score more things to be done, causes just about enough trouble to bring forth execrations upon the heads of every one concerned. One thing is certain. Providing Cuba desires the presence of automobile tourists from the States, it must so shape affairs that nine-tenths of the present red tape may be done away with. Entering Cuba should be even easier than going over into Canada, and it is apparently up to the American Automobile Association in conjunction with the Havana motorists to bring about some arrangement. Without German Lopez of Havana, who carried out the multitudinous details of landing the cars, signing bonds and so on, the Americans might have easily spent one-half their time in Cuba in freeing the cars. Mr.

Lopez charged nothing for his services, and through his generous treatment earned the everlasting gratitude of the visitors.

Chapin to Become a Dealer

R. D. Chapin, the popular sales manager of the Olds Motor Works, whose resignation caused unbounded surprise, is reported to have first placed agencies for every car which could possibly be turned out by the Olds Motor Works this year, before tendering his resignation. It is said that after a long visit to California, Mr. Chapin will undertake the marketing of the product of several factories from an address in Detroit, a work for which he is especially fitted.

Vanderbilt Fast Car to Be Perfected

The huge eight-cylindere racing car of A. G. Vanderbilt, which was constructed for the Ormond races and which failed to run, will be seen in the beach races along the Jersey shore this year. Mr. Vanderbilt paid out just \$18,530 for the building of this car. The failure to run was laid at the door of the theft of several hundred pounds of parts from the express car, which was wrecked near Jacksonville. In this car was the 60 H. P. Mercedes and 90 H. P. Fiat cars of Mr. Vanderbilt. Mr. Vanderbilt has given orders for the proper work to fit the car for two miles a minute and its presence in the beach races will add lots of interest during the coming summer.

President John T. Farson has acted and the A. A. A. is taking prominence through the fact that new officers will govern it throughout. President Farson appointed Sydney Gorham secretary, and the A. A. A. suddenly discovered that the president had discovered a good man, a lawyer and one not only capable but more than capable of filling the new position. Now the president has come forward and appointed to two very important positions other gentlemen who had not been

named as even possibilities: Jefferson de Mont Thompson as Chairman of the Racing Board, and consequently in the most important position in automobile circles to-day, owing to the fact that he becomes chairman of the Vanderbilt Race Commission. He has also appointed to the position of Chairman of the Tours Committee, Paul Deming, a man who for years has toured constantly, and who is prepared to fulfil the duties of the position with honor and credit and to the satisfaction of all. Mr. Thompson, the new chairman, is a man well posted in automobile racing, but like Robert Lee Morrell, a man not even mentioned as a bare possibility before. He is thought to be the selection of Mr. Morrell. Inasmuch as Mr. Morrell was a stranger when he came into the Racing Board fold, and inasmuch as he made good and made more than good, all talk of Chairman Thompson should be withheld until next fall.

The Automobile Club of America plans to hold a huge Economy Run this year, and it is not improbable that the Mt. Washington event will be run as a part of the A. C. A. run, including with the big double event a climb up Crawford's Notch hill. W. J. Morgan, who lately returned from the South, is working together with Secretary S. M. Butler on the project which will prove if carried out one of the important events of the year. The Crawford Notch climb will succeed the Mt. Washington climb. It will be quite as important as the Mt. Washington climb, a better event to watch and much easier to reach.

Rough Practice Tests

Many are the great runs made by Messrs. Jardine, McLaughlin, Bowler and Tucker, of the Royal Motor Car Co., with either Mr. Jardine or Mr. Tucker at the wheel. Royal cars are tested out over long stretches of road,

the run from Cleveland to Buffalo and return being a favorite. Oftentimes a trip is taken up through Canada and from these many long trips Mr. Jardine discovers just what the Royal will stand under the hardest usages. Mr. A. L. Riker, designer of the Locomobile, was accustomed to say years ago, "Any darn fool may buy one of these cars and I just want to drive like a darned fool myself so I may discover whether the car is going to stand the driving of the other fool." It is apparent that Mr. Jardine feels much the same way, for he drives like mad, and providing the Royal shows one weak spot that part is at once reconstructed and another test made.

New Jersey Legislators Seek Notoriety

New Jersey legislators are endeavoring to show themselves in the most unfavorable light possible and are endeavoring to drive from the State those who would spend days, weeks and months enjoying themselves on the thousand or more miles of splendid roads for which the State has become noted. New Jersey constructed roads, gained fame the world over for its highways, and now seeks to drive from its doors the very men best able to enjoy these roads the year round and those best able and most willing to pay for the privilege, the men whose money will enable the building of as many more miles of good roads. Freylinghuysen is being "out-Freylinghuysened" by men who should be thanked for their rapacity, as through their efforts to outdo the originator of crazy legislation they will succeed in checking all legislation and killing every measure proposed by the confusion of bills proposed. The wise men of Jersey are really making themselves a laughing stock the country over in their search for fame and the votes of the farmers. Other States throughout the country have proposed to copy the present New Jersey law, bringing about uniform legislation,

and the farmer legislators are so shaping things as to cause legislators of other States to believe the present law wrong when automobilists generally accept it as just about right, excepting only the requirement of a license for New Jersey alone, other States being willing to accept the license of any other State as identification, as a rule.

Pleasure in Touring Contests

There are mistaken notions regarding the Glidden tour. Some men of the trade believe that the trade interests enter into it. Perhaps they are right in a way, but these gentlemen should be informed that the Glidden tour, as conducted last year, was a friendly contest of gentlemen and that espionage did not enter into the contest at all. Charles J. Glidden offered the Glidden trophy for a contest of gentlemen, and he insists that it must remain such. The donor of the trophy and promoter of touring believes that there should be no such thing as observers, and that the result should be determined through the honorable actions of the contestants in reporting their troubles, if any, correctly. There is also a mistaken notion that tours provide no amusement for the contestants, that it is a case of dust absorption from start to finish and of discomfort at all times. "I'll take mine alone," said one gentleman. This motorist had taken part years ago in a contest, regulated to fifteen miles an hour, with the cars bunched continually. The Glidden tour of last year provided no such discomforts, unless they were sought, and will not provide them this year. The participants traveled as they pleased, kept clear of each other if they pleased, and enjoyed at the completion of each day's tour the companionship of their fellows with the relation of the day's doings, the "talk-fest" being perhaps the most enjoyable feature of the day. Touring on the Glidden tour is not work, not spoiled by suspicion, and

Glidden tours are and always will be thoroughly enjoyable. These facts will be demonstrated by the entry this year of every participant in last year's run and by the entry of five times the number through the missionary work of those who enjoyed the tour of 1905.

New Life in New York Motor Club

When the New York Motor Club elected W. B. Hurlbut, manager of the Packard Company of New York, and A. L. Kull, manager of the Wayne Company of New York, members of the Board of Directors, two better men could not have been found. The Motor Club for a long time has been at a standstill because it did not select for its officials men who would act and not pose. With W. J. P. Moore as President, it was certain that something would be done, and it took Mr. Moore but a short time to discover that he was short of good material in his Board of Directors. He accordingly shifted the checkers once more, and in addition to the election of Messrs. Hurlbut and Kull, brought about the selection of R. H. Johnstone, the publicity manager of the White Sewing Machine Company, as treasurer. The prompt cleaning of house and clearing of the decks which startled automobilism, followed, and now with a clean slate and a paid-up membership, the new officials start out to do things. Entertainments, the annual affairs which have made the club famous on the road, and other events to add fame to the club and assist in the advancement of motoring, will follow rapidly. The Motor Club has a future and the men at the wheel will see that the club does not die of dry rot as it seemed likely to do.

Business Claim Jumpers

A friend of mine, Louis R. Smith, said during the New York automobile show, "When a new gold field is discovered men of every kind rush

into it, stake out any old sort of a claim and look for gold. Some one is disappointed and conditions finally require the organization of vigilance committees to clear up the field so that the fortunate ones may get down to business. This automobile business reminds me of the gold fields and a vigilance committee is becoming necessary." Friend Smith was right. The field of cycling was the same. The pioneers in that industry worked for many years to up-build the business and then after locating their mine saw others flock to the fields, some of them claim jumpers. Vigilance committees were finally formed in the cycling field and they will be formed in the automobile field as well. The old-time experiences of cycling are being re-enacted in automobiling, and the airship is entering the field with a like prospect. Many went up in the air in cycling, figuratively speaking; many will go up in the air in automobiling, figuratively speaking once more, and when the next boom is fairly launched, as it promises to be this year, through the efforts of the Aero Club, men will go up in the air in reality. In the old cycling days we started from Chicago for New York over any line of railroad, and as each town or city was reached some one remarked, "So and so has started here making the go-fast wheel." Bicycle factories were everywhere in evidence. Now it is automobiles, and every town either has or will have its factory. Not that automobiles will ever go out through the fad proposition, not that too many will ever be made, but many things are being overdone, and, as Mr. Smith says, the vigilance committee will soon get to work. With the cutting down by the leaders of the annual shortage of cars, there will come a reaction when the weak will go under and the strong and well-developed makers will grow amazingly. It behooves those who

are starting now and who have but just located their claims in the new gold field to work night and day and develop the claim or seek another which will yield steadily and give them standing in the community ere the vigilance committee gets in its deadly work.

A Line of Useful Investigation

Prof. J. W. Esterline, of the Department of Electrical Engineering, Purdue University, LaFayette, Indiana, has decided to undertake an investigation of the requirements for igniting gasoline in the cylinders of automobile engines. Plans are already being laid for beginning experimental work. Two series of investigations are to be started. A comprehensive study is to be made of the apparatus now on the market for igniting gasoline engines. This should comprise a study of magnetos, spark coils, batteries and the sparking or igniting appliances. Parallel with this there will be conducted another series of tests for the purpose of determining the limitations of, and if possible, the ideal conditions for the igniting of gasoline.

Variations of capacity, inductance, current, electro-motive force, compression and quality of the mixture will be made, and the effect of these variables studied. It is hoped that a comparison of the ideal requirements with the tests of the commercial apparatus will be possible.

The hearty co-operation of the manufacturers of gasoline engines and igniting apparatus is all that is now required to make this series of experiments comprehensive and of a nature which would be of value to the manufacturers and operators of such apparatus.

Spontaneous Combustion

An experience of Archer and Company of New York may serve as a useful lesson and save possible trouble. This experience taught Mr. Archer a lesson he will not soon forget. He had had the

handsome Hotchkiss chassis which attracted so much attention at the Armory Show, where it resulted in the sale of a dozen cars, smeared over with what is known as petroleum jelly, and then wrapped carefully in burlap. Mr. Archer tells the story in this way: "The chassis was all ready to ship and the wagon was at the door when suddenly the burlap burst into flame. There was no one near it and I feel quite certain that spontaneous combustion caused the fire. Fortunately we had extinguishers at hand and the chassis was practically uninjured, but suppose that fire had started in the freight car en route to Buffalo or after the arrival at the show. There is food for thought in this experience of ours."

Garages Against Insurance Inspectors

The garage keepers are having a rather warm time with the city authorities and also with the insurance people and many garages which have received their license to do business for years without question are now between the devil and the deep blue sea, being compelled to change things all around at some times enormous expense or go out of business. Gasolene pumps must be changed from one end to the other, furnaces and forges must be removed from the building, brick walls must be constructed around the aforesaid gasolene pumps and a dozen and one things must be done. What satisfies the insurance man doesn't satisfy the city man and vice versa and the poor garage keeper doesn't quite know where he gets off at. One of these gentlemen, in talking with a city fireman, said: "Which would you rather do, fight a garage fire or a stable fire?" The fireman looked blank and then said: "To tell the truth, we've had but one garage fire to fight and we've had lots of experience with stables. I'd rather fight fire in a garage every time, for the dense smoke of a stable lays my men out regular." Yet there are three score big garages in

New York and there's been but one fire under the conditions that existed. Then why the activity? There are those who spell it G-R-A-F-T.

Number of Automobiles on Broadway

It will not be long now before statisticians will be giving interesting figures regarding the number of automobiles traveling up and down Broadway. The figures will be so large that they will be considered untruthful. The outlook for a crowded thoroughfare was never better. New garages along the row will house over two thousand machines. Every driver of a car in New York will naturally gravitate toward the great center of the automobile industry. The boulevards will catch every one and although the automobile carries its devotees far out into the highways and byways, thousands will take pleasure spins on the boulevards. In all probability the old scenes of the days of cycling will be re-enacted and ordinary vehicles driven by horses will be quite out of place. The bicycle once drove the horse-drawn vehicle from the boulevard and the larger automobile takes up more room and will be more likely to bar the boulevard to all other than its own kind.

A Scots Laddie

A Scots laddie was giving evidence in a case where his father was the accused. "Come, my wee man, speak the truth," said the magistrate. "Weel, sir," said the lad, "d'ye ken Castle street?" "I do," replied his worship. "Weel, ye gang alang it and turn into the square and across the square——" "Yes, yes," said the bailie, encouragingly. "An' when ye gang across the square ye turn to the right; and up into High street, till ye come to a pump." "Quite right, my lad; proceed." "Weel," said the boy, with the most infantile simplicity, "ye may gang and pump it, for ye'll no pump me."

The 'Most Desirable Fuel for Motor Cars

We have been hearing a great deal of late about the desirability of a fuel better than gasoline for automobiles, and denaturalized alcohol is highly recommended. This advocating a material, not because it is likely to be equally efficient to petroleum spirit, but because its general introduction as a fuel would aid and sustain the poor farmer, that universal pleader for privileges for himself and assailant of the rights of others.

Alcohol for gas engines has been coddled for years by the German and French governments, and these powerful influences have not been able to bring it into competition with petroleum compounds.

Were it not that gasoline is needed to warm up the cylinders in the start, the ideal fuel for an automobile is kerosene. It may be that invention will soon perfect an atomiser of kerosene that will render the use of gasoline unnecessary. In that case there will be little demand for gasoline and the agitation in favor of denaturalized alcohol will cease.

Considered as a source of power for general use, kerosene oil is without a rival. It is obtainable everywhere, at low cost, is safe and possesses the highest thermodynamic value. One pound of ordinary illuminating oil contains three hundred times the energy of one pound of storage battery, is fifty times more powerful than liquid air, and its potential energy is ten times greater than dynamite. Ordinary domestic kerosene of 120 degrees Fahr. flash and 150 degrees Fahr. fire test has a specific gravity of about .785, so that a gallon weighs 6.54 pounds and has 135,357 heat units. An equal weight of pure carbon burned to carbon dioxide produces only 94,830 heat units. Weight for weight kerosene produces about the same thermodynamic effects as gasoline.

The tendency of the times is for a high-powered automobile of the gasoline type with such features of mechanical control as to recommend its use for the service of women. While the engineers of the country have realized many improvements in control, tending to either simplify or realize this end, nothing in the recent Automobile Shows, seems to absolutely meet this need, which is recognized as a pressing one for the near future. However, it is rumored about that inventors are now giving their attention to the designing of a high-powered gasoline car adapted to be driven by women; and certain ones seem to have succeeded, though they have not yet reached a point of commercial understanding. One of the most pertinent achievements in this direction is the gas engine, its power being applied through the medium of an electrical transmission device which does away with the eccentricities and intricacies of the sliding gear transmission sets, always so difficult to understand by women, and requiring more than a woman's usual stock of strength to manipulate.

Inviting Difficulties to Be Conquered

The stories told by Percy Megargle are all very interesting, and the book which Megargle is to write will be long and interesting, but the friends of the Rochester newspaper man are wondering whether he has lost his senses. Percy tells of days spent in getting his car over what would ordinarily be an hour's traveling at the most, of nights spent camping in the snow, of blizzards encountered, of quicksands and so on, and these friends wonder why in the natural course of events Percy does not put up in some comfortable ranch house and there remain until the snow is off the ground and the roads in somewhere near good traveling condition. There's little gained by such struggling as Megargle has been engaged in for some time.

Persons and Things

Irving Brokaw, the celebrated automobilist, has excited much admiration during the winter through his skill at figure skating. It is not often we find an all-round sport equally expert at all games of skill, but Mr. Brokaw is one of these. His record is first-class at polo, golf, yachting, motoring and now he excels on the ice. He is going to take up the roasting game of curling next winter.

We are advised that Charles E. Miller, of New York, has moved his large automobile supply store to 924 Eighth avenue, which is within a few hundred feet of the new club house of the Automobile Club of America. The store will be open till 9 P. M. daily and Sunday forenoon for the convenience of automobilists.

Mr. and Mrs. John Caswell, of Prides Crossing, who have long been prominent where automobiles reign, are touring Europe this winter in an American car, a Columbia. Mr. Caswell is the owner of the largest and most famous pack of beagle hounds, and has always patronized home automobile manufacturers. During the recent Florida meet when Mr. Caswell was driving Mrs. W. K. Vanderbilt down the beach, and their car overtook the donor of the famous cup, who shares the ownership of two or three hunting preserves with Mr. Caswell, Mrs. Vanderbilt was heard to remark: "Willie, I have just come down the beach with Mr. Caswell, and I do not see why you want to buy and pay more for a foreign car than for a good American one." This is the way one woman looks at it.

Clinton T. Zeigler, formerly connected with the sales department of the New

York branch of the Rainier Company, has accepted a position as salesman with the Orlando Weber Company. He will have charge of the sales of the Babcock Electric and the Pope line.

John Farson, the new president of the A. A. A., has been one of the most enthusiastic automobilists in the country and has been repeatedly president of the Chicago Automobile Club. He has been noted in Illinois for the vigorous fights he led in defending the rights of automobilists. The Association has fallen into good hands.

Mr. E. D. Winans, who returned from France in January with the Michelin contract for 1906 and thereafter, has power and authority to make arrangements for the establishment of a Michelin factory in America which will make the famous Michelin tires. The output of the Michelin factory now is sixteen hundred (1,600) tires every working day. Michelin factories have been built in Italy, England and Germany, and the Michelin factory in America, when under operation, will make only the finest class of goods of the best Para rubber, such as is being imported now by the Michelin Products Selling Company, of which Mr. E. D. Winans is general manager.

Mr. Charles Morgan, the wealthy grandson of the founder of the Morgan Steamship Line, who has just returned from a trip through Mexico and the West Indies, is to assume the management of the Crawford Car Agency, at 152 West 56th street. These cars are made by the same people whose reputation was famous in the bicycle days.

The management of the National Sales Corporation, of 256 Broadway, New York, passed into the hands of Mr. Joseph Grossman on February 26, suc-

ceeding Mr. E. J. Kuegeman, who has held that position during the past few months. Mr. Grossman has been connected with the Continental Caoutchouc Co. during the past fifteen months, in the capacity of advertising manager and purchasing agent, and is, therefore, well qualified to assume the duties of a concern like the National Sales Corporation. As the trade is already aware, this company is exclusive selling agent for the

common among dealers. Concerning the show, Mr. Wistar says: Three signal and much-desired ends have been accomplished: automobiles sold, a very large proportion of Philadelphia's public educated up to the advantages of the horseless vehicle, and good feeling established among both manufacturers and dealers.

Roller bearing business is booming, for during the past year the Standard



J. DE MONT THOMPSON, CHAIRMAN A. A. A. RACING BOARD

Well known New York business man, who has consented to fulfil the delicate and difficult duties

well-known "Soot-Proof" plugs, Connecticut coils, plug switches and meters, Dodge lubricators and timers and "Geece" batteries.

John A. Wistar, of the firm of Gawthorp & Wistar, Philadelphia, was a member of the Executive Committee that managed the Philadelphia automobile show and performed good public service. He has been taking a very energetic stand against the practice of "knocking" their competitors' goods, so

Roller Bearing Company have equipped with machinery a four-story building, 95x200 feet, and have also built and equipped an iron foundry, 70x150 feet, two stories in height; hardening and tempering building, 70x150 feet, and a crucible steel castings plant, 60x100 feet. With the new building, which will be erected immediately, the company will employ over 1,000 hands in the manufacture of steel balls, ball bearings, roller bearings, automobile axles and annular ball bearings.

Race Between Gasolene Railroad Cars

There was an interesting test of railroad gasolene cars on the Delaware & Hudson Railroad last month. There were two contestants, a Delaware & Hudson gasolene car, driven by a 140 H. P. Wolesley motor, made in England, and a gasolene railroad car, built by the Edison General Electric Co., and propelled by an 80 H. P. Westinghouse motor. The latter won easily by a big margin, and the result is a great success for the American manufacturers. The Wolesley motor is the type used for over two years by the English railroads and it is gratifying to note that the American motor built for railroad service is superior.

The gasolene railroad car built by the Edison General Electric Co. is a great success. It is propelled by two electric motors receiving current from a generator, which, in turn, derives its power from an 80 H. P. Westinghouse gasolene motor. Storage batteries are also used to store up current on down grades, or when the car is lightly loaded and these batteries furnish additional power to the motors on up grades or when a heavy load is being carried.

Good Time Between New York and Boston

Burgoyne Hamilton, New York manager of the Welch Motor Car Company, Detroit, made a notable run with one of his stock touring cars from New York to Boston on the day the Boston show opened. Mr. Hamilton says:

"We left New York city at 6.35 A. M. and ran along with our foreign car competitors to Hartford. From here we started out about three-quarters of an hour ahead of the others and arrived in Boston at 6.35 P. M., just twelve hours after leaving New York city. About

three hours later our competitors also arrived in Boston.

"The roads in places were nothing less than quagmires, which necessitated very slow progress, but at no time were we compelled to get out of the car and push, as we afterwards learned some of the others were forced to do; and at no time did we make a single adjustment on our car.

"At the end of the journey our odometer registered the trip two hundred and forty-four miles, the extra mileage being due to the fact that we missed our road a number of times and traveled many unnecessary miles. We figured that it actually took us ten hours to make the run.

"We think that this is a significant victory of an American car over the foreigners, and we trust that you will deem it important enough to make mention of it in your magazine."

Praise of Diamond Tires

Facts relating to the durability of automobile tires are interesting to our readers. On that account we publish notes made by C. J. Pembroke, of Kee Fox Manufacturing Company, Rochester, N. Y., who says:

My sales manager purchased a "Thomas Flyer" (weight 3,000 lbs.) early in the spring of 1905, equipped with "Diamond Tires." He ran the car about 1,000 miles up to the middle of June, when I took the car off his hands, at which time he had injured one of the casings, which he replaced with a new one, and as he reported to me (and I have since found his statement to be true when removing the tires for laying up) that none of the other three tires had been punctured. We commenced my experience with one new casing and three tires that had been driven 1,000 miles without a puncture. I have since then driven the car 4,500 miles and have never even put any extra air in any of

the four tires, and if I had been equipped with solid steel tires I could not have had less tire trouble.

I will commence next season with the same front tires, but will have the rear tires recovered, as they show some wear.

If you have heard of another case of 5,500 miles without the use of the pump on three tires and over 4,500 miles for the fourth one on a car of equal weight and speed, using $4\frac{1}{2}$ ins. rear and 4 ins. forward, I would be pleased to know of it, believing as I do that I have had the extreme in tire satisfaction.

An important change has been made in the Lozier Type D 40 H. P. cars as regards the ignition system. One of these cars will henceforth be equipped with two separate sets of ignition. On one side of the motor in the covers fitted above the inlet valves is a set of firing plugs connected to a Remy or Simms-Bosch magneto. In the valve covers of the exhaust valves is another set of independent plugs connected to storage battery, accumulators and distributors. The advantages of this double system are obvious. In case of trouble with any spark plug, the other system may immediately be thrown into connection, or in case of complication or trouble with the magneto or the batteries, the reserve source of electricity may be brought into play.

Our Automobile Business

According to official figures, as sworn to in the United States Circuit Court, the total number of vehicles manufactured and imported under license from January 1, 1903, to January 1, 1906, was 41,696. The valuation of these cars was \$63,141,437.22, and the royalties paid on them to the licensors was \$814,183.52. All of the figures given represent cars actually sold.

The increase of production in 1904 over 1903 amounted to 30 per cent. in the number of vehicles, and the increase

in the value of the gross sales was 58 per cent. The increase of 1905 over 1904 in the number of vehicles was 32.5 per cent., while the increase in the value of the product sold rose to 66.2 per cent.

The total business in 1905, according to the testimony, amounted to 17,840 vehicles, having a valuation of \$31,814,758.99.

These figures reveal some averages of peculiar interest. Taking the total number of cars produced by the licensed makers and their selling prices, it is shown that the average selling price for cars of all sorts in 1903 was approximately \$1,170. In 1904 the average price was \$1,422. In 1905 it was \$1,784. For the three years 1903, 1904 and 1905 the average selling price of domestic cars was \$1,429, and of imported cars \$6,710. This is a stupendous business to have developed during less than one decade.

Efficiency of Tires

There is something much more sensational than scientific in the statement recently made in an ostentatious fashion by a British automobilist to the effect that he attained 50 per cent. more speed with large pneumatic tires than with solid tires. No fair criterion of efficiency can be made between tires of different shapes without taking into consideration the surface of the road traversed. On a very soft road, where its limited tread surface would cause a solid tire to cut into the ground, there might be more resistance to traction than in the case of a large pneumatic tire, but on ordinary roads a pneumatic tire would meet with more resistance than a solid tire, since it would cover a wider track. Generalizing on a case of this kind is more in the line of special pleading than in the interests of scientific truth. The best way to test tire resistance is to put them under electric cars run under uniform conditions.

Railroad Inspection Car

A new type of gasoline engine railroad inspection car is shown in our illustration. The car is similar in general construction to the former Oldsmobile railroad inspection car, with the exception of having an arrangement of seats behind, which gives it a capacity of from six to eight persons. The car is so designed as to permit of these extra seats being removed and replaced by a platform which will carry men, tools and material for ordinary railroad repair work.

lene sufficient to run them one hundred miles or more, while the cost of operating is very slight since a gallon of gasoline is sufficient to run them twenty to twenty-five miles.

One of these cars has been used more than three thousand miles on a prominent railroad system where there are grades as high as 3 per cent. and has demonstrated its capability by ascending these grades at a satisfactory speed with a full load. From a full stop on a maximum grade the car quickly develops a



RAILROAD INSPECTION CAR

The car is driven by a 7 H. P. gasoline motor, and has a speed possibility of from thirty to thirty-five miles per hour, and which is, however, variable and always under perfect control. The engine and gearing are the same as used in the ordinary road automobile.

The car is built for standard gauge tracks, has sixty-two-inch wheel base, oak sills, 20-in. pressed steel wheels, cold-rolled steel axles, roller bearing and powerful brakes of the expanding clutch type. These cars carry water and gaso-

speed of twenty miles per hour. In operating the car backward it is geared to run at about one-half its forward speed. The Quincy, Manchester, Sargent Co., of Chicago, will be happy to give inquirers further information about these cars.

Out of the Mouths of Babes

Little Ned—Girls are awfully stuck up.

Little Flossie—They ain't, neither.

Little Ned—They are, too. They think they are just as important as boys.

Chairman Thompson on Racing

J. D. Thompson, chairman of the Racing Board of the A. A. A., will visit Europe this summer and be an interested spectator at the Grand Prix of France. Mr. Thompson has seen all of the great road races of the past, but he will take an added interest in the event this year owing to the Vanderbilt race, now under his protecting wing. Mr. Thompson has already formed a number of plans for the 1906 race, and upon these he is already at work. He believes for one thing that America as a country and New York as a State should guard the course. "The event is of such international importance," said Chairman Thompson, "that our country should safe-guard it properly as is done in Europe." In regard to the course, nothing will be finally decided until some time in May in all probability. The chairman would not say positively that Long Island would be the scene of the contest. Other sections of the country are after the race.

"The interest in this race," said the chairman, "is greater even than I expected. My mail daily is enormous and from inquiries being received I am led to believe that America will turn out many more cars than is expected, and that these cars will ably carry the Stars and Stripes against the best that Europe can send over."

Districts Want Vanderbilt Race

In regard to the course, Frank P. Krug, President of the organization known as "Krug's Corner Clockers," said: "Down at Hempstead and Hicksville petition after petition is being circulated, for these towns are determined the Vanderbilt race shall be run over the course of '1904.' Strange, is it not? In 1904 they fought so hard against the race and now they are fighting even harder for it. And talking about petitions. There are petitions on all sides down our

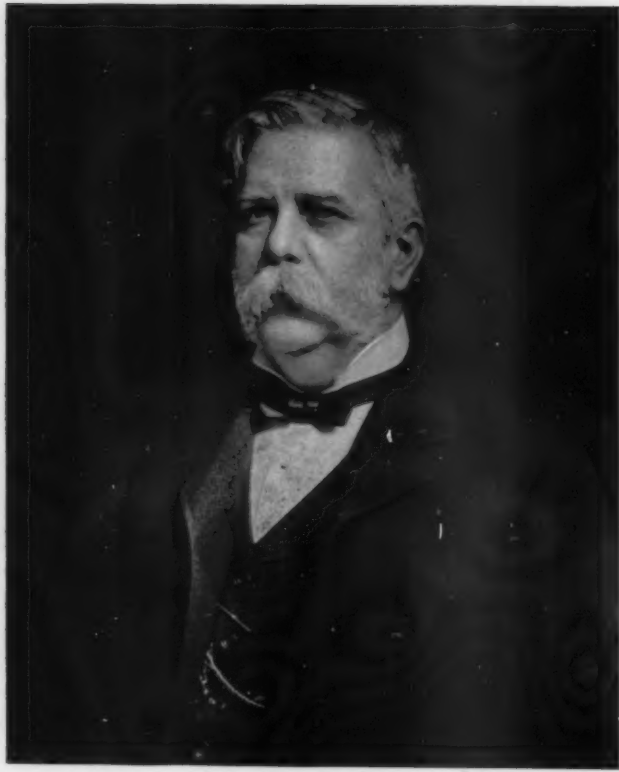
way. Residents along last year's course want the race again and those along the 1904 course are more numerous and so feel sure of it. All sorts of promises are being made as regards road improvements and this year's race will be over roads carefully prepared I can tell you."

Mr. Krug is located at the corner of Willis avenue and the Jericho Road, and the race either way suits him. He is this year preparing to care for an even larger crowd than last year.

Several makers have already bespoken accommodations for their teams and, in very fact, pretty nearly all the available places have already been engaged. Wherever it is possible along the course, barns are being fitted up as garages and large houses as hotels. Caught once, the residents don't propose to be caught again, and the 1906 harvest will be a goodly one.

A Far Reaching Circuit

What is confidently looked on as a record for 1906 automobiles for this season of the year is that made by Edward Richards, who has just returned to Buffalo from New England after a trip that has lasted ten weeks. Richards took a Thomas "Flyer" the middle of October last year, and ran it in Buffalo until the beginning of the New York Automobile show when the car was shipped there. From then on it was in a constant series of demonstrations, his rest coming only at the conclusion of the Boston show. Among the cities visited were Rochester, Chicago, Detroit, Cleveland, Philadelphia, then a week in Buffalo and thence to Boston. At the end of the Boston show, the odometer on the car showed that he had traveled 18,503 miles in the five months, an average of a little over 3,701 miles a month or over 120 miles a day for five months. Richards will take his car to the Toronto show, running overland from Buffalo with it.



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